

# Pennsylvania Insurance Department – Bureau of Special Funds

*Actuarial Analysis for the Underground Storage Tank  
Indemnification Fund and the Tank Installers Indemnification  
Program*

*As of June 30, 2013*

*Issue Date – December 3, 2013*

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Prepared for: Underground Storage Tank Indemnification Fund and TIIP



## I. Introduction

### Purpose

Aon Global Risk Consulting (AGRC) has been retained by the Pennsylvania Department of General Services (PA DGS) on behalf of the Pennsylvania Insurance Department, Bureau of Special Funds (PA BSF) to provide an actuarial review of the Underground Storage Tank Indemnification Fund (USTIF) and the Tank Installers' Indemnification Program (TIIP) as of June 30, 2013.

The estimated liabilities and projections included in this report are intended to be used to support the management of the USTIF and TIIP. These estimates are based on data valued as of June 30, 2013.

### Background

The Underground Storage Tank Indemnification Fund began operation in February 1994 with the purpose of helping underground storage tank owners and operators comply with financial responsibility requirements established by the Federal Environmental Protection Agency (EPA) in the event of a regulated substance release from an eligible underground storage tank (UST). The USTIF also manages the Tank Installers' Indemnification Program which provides coverage to tank installers.

The USTIF is funded by the payment of capacity and throughput fees on regulated substances by tank owners and operators. The USTIF also receives revenue income from investments and other items. The TIIP is funded by the payment of annual certified company fees and tank installer activity fees by certified tank installer companies.

The USTIF issued a \$100mln loan to the Commonwealth of Pennsylvania on October 15, 2002 (General Fund Loan). The outstanding principal on the loan is \$67.5mln as of June 30, 2013.

### Scope

The specific scope of our analysis is to provide the following:

- a. Estimate the unpaid loss and allocated loss adjustment expense (ALAE) as of June 30, 2013 for USTIF. The estimates will be provided on a net basis with respect to USTIF's limits and deductibles. Estimates will be provided on both a discounted and undiscounted basis. The interest rates used for discounting the unpaid losses was provided by PA BSF. A review of the appropriateness of the discount rate is outside of scope for this review.
- b. Evaluate the financial status of the USTIF as of June 30, 2013.
- c. Recommend fees for USTIF based on the Underground Storage Tank Indemnification Board (Board) requirements.



- d. Prepare a cash flow report for USTIF that projects payments and investment income through the twenty year period beginning July 1, 2013. The sensitivity of the results to the underlying interest rate assumption will also be tested. Pro forma balance sheets and income statements will be prepared for this period.
- e. Project the annual TIIP underwriting income for the ten year period beginning July 1, 2013.

\* \* \* \* \*

We, Charles B. Kullmann and Jay Matthew South are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

This report was prepared with the assistance of Peipei Zhou from Financial Integrity Resources Management, LLC in accordance with our Small Disadvantaged Business proposal submitted to the PA DGS.

We performed this analysis using generally accepted actuarial principles and in accordance with all relevant Actuarial Standards of Practice.

Please contact us if you have any questions regarding this report.

Respectfully submitted,

Aon Global Risk Consulting

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## II. Conditions and Limitations

### Inherent Uncertainty

Actuarial calculations produce estimates of inherently uncertain future contingent events. We believe that the estimates provided represent reasonable provisions based on the appropriate application of actuarial techniques to the available data. However, there is no guarantee that actual future payments will not differ from estimates included herein.

### Extraordinary Future Emergence

Our projections make no provision for the extraordinary future emergence of losses or types of losses not sufficiently represented in the historical data or which are not yet quantifiable.

### Data Reliance

In conducting this analysis, we relied upon the provided data without audit or independent verification; however, we reviewed it for reasonableness and consistency. Any inaccuracies in quantitative data or qualitative representations could have a significant effect on the results of our review and analysis.

### Discounting

The uncertainty inherent in the discounted unpaid loss estimates is greater than the uncertainty in the undiscounted loss estimates. This is because undiscounted liabilities normally contemplate an implicit risk margin for the variability in the loss estimation process (e.g., under- or over-estimating). Discounting takes away this implicit risk margin and would subject the unpaid loss estimates to additional risks such as yields on the investment portfolio and the timing risk. Future loss payments could occur more or less rapidly than expected due to random variations and the timing of large claim payments. We made no adjustment to account for these risk margins. The interest rates used for discounting the unpaid losses was provided by PA BSF. A review of the appropriateness of the discount rate is outside of scope for this review.

### Use and Distribution

Use of this report is limited to PA BSF for the specific purpose described in the Introduction section. Other uses are prohibited without an executed release with Aon.

Distribution by PA BSF is unrestricted. We recognize that this report may be distributed to third parties. We request that Aon be notified of further distribution of this report. The report should only be distributed in its entirety including all supporting exhibits.



## III. Executive Summary

### Summary of Results

#### I. Estimated Outstanding Loss and ALAE for USTIF as of June 30, 2013

The following table summarizes the estimated outstanding loss and ALAE for USTIF as of June 30, 2013. Please see the Observation/Findings section of this report for more details.

<b>Estimated Unpaid Loss and ALAE at 6/30/2013</b>			
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
<b>Report Year Beginning 1/1:</b>	<b>Estimated Ultimate Loss and ALAE</b>	<b>Paid Loss and ALAE</b>	<b>Estimated Total Outstanding as of 6/30/2013</b>
1994	\$18,450,000	\$16,960,856	\$1,489,144
1995	\$51,578,019	\$45,385,634	\$6,192,385
1996	\$65,963,517	\$56,070,870	\$9,892,647
1997	\$81,986,640	\$70,964,001	\$11,022,639
1998	\$116,859,688	\$99,267,204	\$17,592,484
1999	\$139,257,414	\$114,222,172	\$25,035,242
2000	\$84,670,010	\$67,561,969	\$17,108,041
2001	\$98,591,921	\$75,362,419	\$23,229,502
2002	\$81,073,964	\$59,247,608	\$21,826,356
2003	\$52,600,000	\$36,433,179	\$16,166,821
2004	\$73,840,937	\$48,387,478	\$25,453,459
2005	\$54,571,873	\$34,044,114	\$20,527,759
2006	\$42,447,334	\$24,117,224	\$18,330,110
2007	\$49,037,579	\$25,579,250	\$23,458,329
2008	\$47,000,000	\$21,278,261	\$25,721,739
2009	\$46,000,000	\$16,792,828	\$29,207,172
2010	\$43,000,000	\$13,085,279	\$29,914,721
2011	\$49,400,000	\$8,574,608	\$40,825,392
2012	\$49,004,147	\$2,846,016	\$46,158,131
1/1 - 6/30/2012	\$25,508,814	\$74,933	\$25,433,881
<b>Total</b>	<b>1,270,841,858</b>	<b>836,255,903</b>	<b>434,585,955</b>

#### II. Financial Position for USTIF as of June 30, 2013

The following table presents USTIF's estimated financial position as of June 30, 2013. The results are based on our ultimate loss and ALAE projections and the financial statement



information and projections provided by USTIF. Please see the Cash Flow and Actuarial Assumptions section of this report for more details.

<b>Financial Position at 6/30/2013</b>		
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
<b>Assets</b>	<b>Undiscounted</b>	<b>Discounted at 4%</b>
Cash and Invested Assets	\$163,845,231	\$163,845,231
DCED Loan Receivable	-	-
General Fund Loan Receivable	67,500,000	67,500,000
Interest receivable on GF Loan	14,113,452	14,113,452
<b>Total Assets</b>	<b>245,458,683</b>	<b>245,458,683</b>
<b>Liabilities</b>		
Outstanding Loss and ALAE	434,585,955	345,720,076
Other Liabilities	6,853,134	6,853,134
<b>Total Liabilities</b>	<b>441,439,089</b>	<b>352,573,210</b>
<b>Surplus / (Deficit)</b>	<b>(195,980,406)</b>	<b>(107,114,527)</b>

The discounted financial position only discounts the outstanding loss and ALAE expense. The interest rate of 4% used for discounting was provided by PA BSF. The discounting assumes that there are sufficient assets available which have suitably scheduled maturities and/or adequate liquidity to meet the assumed cash flow and investment requirements, which is not the case based on the current projections as the discounted position corresponds to a deficit.

We have been asked to evaluate the sensitivity of the results to the interest rate used for discounting. The total Surplus / (Deficit) based on interest rates of 3.5% and 4.5% are as follows:

	<b><u>Discounted at 3.5%</u></b>	<b><u>Discounted at 4.0%</u></b>	<b><u>Discounted at 4.5%</u></b>
<b>Surplus / (Deficit)</b>	(116,321,436)	(107,114,527)	(98,347,641)



### III. Recommendations Regarding USTIF Fees

On September 29, 2003 the Board established a fee setting objective that requires having positive Cash and Invested Assets for a projection period of at least five years. The following table presents the ten year cash flow projections under the current fee structure. The projections assume that the GF Loan will be renegotiated in 2014 and that future payments will consist of \$5.7mIn per year beginning in fiscal year 2014/15. This GF Loan repayment scenario was provided by USTIF. Under these assumptions, the final GF Loan payment is expected to occur in fiscal year 2028/29. Our model predicts that the five year requirement for positive Cash and Invested Assets will be met under the current fee structure (Capacity / Throughput fees of \$.0825 / \$.011). In other words, no fee increases are necessary under the assumptions underlying this analysis and the Board's requirement that positive cash and invested assets be maintained over a five year time horizon. However, the deficit is expected to grow during this period.

**Cash Flow Table 1**

**Fee Structure : 0.0% Increase in Fees Effective 1/1/2014**

All Values in \$000's

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Fiscal Year Beginning	Initial Cash & Invested Assets	Fee Revenue	Loss & ALAE Payments	Investment Income at 4% per annum	Other Cash Flows	Total Cash Flow	Ending Cash and Invested Assets	Undiscounted Year End Deficit	Discounted Year End Deficit
7/1/2013	163,845	60,600	(53,785)	6,467	(11,140)	2,142	165,987	(194,075)	(106,268)
7/1/2014	165,987	60,057	(54,113)	6,678	(4,016)	8,606	174,593	(191,431)	(104,326)
7/1/2015	174,593	59,519	(55,641)	6,945	(5,798)	5,025	179,619	(192,670)	(105,912)
7/1/2016	179,619	58,987	(58,227)	7,112	(4,388)	3,484	183,103	(194,736)	(107,932)
7/1/2017	183,103	58,460	(59,214)	7,207	(5,086)	1,368	184,471	(199,653)	(112,380)
7/1/2018	184,471	57,939	(60,580)	7,218	(5,403)	(0,827)	183,645	(207,332)	(119,164)
7/1/2019	183,645	57,422	(61,268)	7,154	(5,733)	(2,424)	181,220	(217,832)	(128,345)
7/1/2020	181,220	56,911	(61,822)	7,029	(6,077)	(3,959)	177,262	(231,325)	(140,119)
7/1/2021	177,262	56,405	(62,186)	6,846	(6,434)	(5,368)	171,893	(247,938)	(154,643)
7/1/2022	171,893	55,904	(61,684)	6,624	(6,805)	(5,961)	165,933	(267,730)	(172,034)
7/1/13 - 6/30/23	163,845	582,205	(588,520)	69,282	(60,879)	2,088	165,933	(267,730)	(172,034)

Please see the exhibit "Pro Forma 1.3 - Cash Flow" for the continuation of this projection through 6/30/2033. The Cash and Invested Assets are expected to remain positive through 6/30/2031.





We have been asked to evaluate the sensitivity of these results to the interest rate used for discounting. The total combined results for 7/1/13 – 6/30/23 based on interest rates of 3.5% and 4.5% are as follows:

<b>Cash Flow Results under Additional Investment Rates – 7/1/13 through 6/30/2023 Combined</b>									
<b>Fee Structure : 0.0% Increase in Fees Effective 1/1/2014</b>									
<b>All Values Shown in \$000's</b>									
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>	<b>(8)</b>	<b>(9)</b>	<b>(10)</b>
Investment Rate	Initial Cash & Invested Assets	Fee Revenue	Loss & ALAE Payments	Investment Income	Other Cash Flows	Total Cash Flow	Ending Cash and Invested Assets	Undiscounted Year End Deficit	Discounted Year End Deficit
3.5%	163,845	582,205	(588,520)	59,131	(60,879)	(8,063)	155,783	(277,881)	(191,989)
4.0%	163,845	582,205	(588,520)	69,282	(60,879)	2,088	165,933	(267,730)	(172,034)
4.5%	163,845	582,205	(588,520)	79,910	(60,879)	12,716	176,561	(257,102)	(152,095)

The investment rates are applied to the cash and invested assets underlying column (5) of the table and to discount the unpaid loss and ALAE amounts underlying column (10) of the table. Although we have varied the investment rate, the GF Loan interest rate remains unchanged at 0.5% per annum.



#### **IV. Alternative Fee Structures**

As shown in the above cash flow projections, the deficit is expected to grow under the current fee structure. In order to ensure that the deficit does not grow over the ten year time horizon, the fees would have to be increased by approximately 10.7%. The cash flow projections under the revised fee structure (\$.0913 / \$.0122) are presented in the following table.

<b>Cash Flow Table 2</b>									
<b>Fee Structure : 10.7% Increase in Fees Effective 1/1/2014 (\$.0913 / \$.0122)</b>									
<b>All Values Shown in \$000's</b>									
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>	<b>(8)</b>	<b>(9)</b>	<b>(10)</b>
Fiscal Year Beginning	Initial Cash & Invested Assets	Fee Revenue	Loss & ALAE Payments	Investment Income at 4% per annum	Other Cash Flows	Total Cash Flow	Ending Cash and Invested Assets	Undiscounted Year End Deficit	Discounted Year End Deficit
7/1/2013	163,845	63,840	(53,785)	6,532	(11,140)	5,446	169,292	(190,771)	(102,964)
7/1/2014	169,292	66,478	(54,113)	6,939	(4,016)	15,288	184,580	(181,445)	(94,339)
7/1/2015	184,580	65,883	(55,641)	7,472	(5,798)	11,916	196,496	(175,792)	(89,034)
7/1/2016	196,496	65,294	(58,227)	7,913	(4,388)	10,592	207,088	(170,751)	(83,947)
7/1/2017	207,088	64,711	(59,214)	8,292	(5,086)	8,703	215,791	(168,333)	(81,060)
7/1/2018	215,791	64,134	(60,580)	8,595	(5,403)	6,745	222,537	(168,440)	(80,272)
7/1/2019	222,537	63,562	(61,268)	8,833	(5,733)	5,394	227,930	(171,122)	(81,635)
7/1/2020	227,930	62,996	(61,822)	9,019	(6,077)	4,116	232,047	(176,540)	(85,334)
7/1/2021	232,047	62,436	(62,186)	9,158	(6,434)	2,975	235,021	(184,810)	(91,515)
7/1/2022	235,021	61,881	(61,684)	9,269	(6,805)	2,661	237,683	(195,980)	(100,284)
7/1/13 - 6/30/23	163,845	641,216	(588,520)	82,021	(60,879)	73,838	237,683	(195,980)	(100,284)

An alternative to a one-time fee increase at 1/1/2014 would be level annual fee increases during the ten year period. The annual increase required to keep the deficit from growing is approximately 2.3%.



## **V. Projected Underwriting Income for TIIP**

The projected TIIP underwriting income for the period 7/1/2013 through 6/30/2023 is presented in the following table. Based on these projections, the current fee schedule is not expected to generate sufficient revenue to cover projected losses and expenses for this 10 year period. The total fee revenue for the periods prior to 7/1/2013 is approximately \$3.6mln with total reported loss and paid ALAE expense for this period of approximately \$2.1mln. The total reported loss and paid ALAE expense has decreased by approximately \$250K since our 2012 review.

<b><u>TIIP Loss and Expense Projections</u></b>				
<b>Incurred by Fiscal Year</b>				
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
<b><u>Fiscal Year</u></b>	<b>Total Revenue</b>	<b>Estimated Total Annual Cost</b>	<b>Underwriting Income</b>	<b>Cumulative Underwriting Income</b>
7/1/13 - 6/30/14	280,000	302,580	(22,580)	(22,580)
7/1/14 - 6/30/15	280,000	312,213	(32,213)	(54,793)
7/1/15 - 6/30/16	280,000	322,158	(42,158)	(96,951)
7/1/16 - 6/30/17	280,000	332,424	(52,424)	(149,374)
7/1/17 - 6/30/18	280,000	343,021	(63,021)	(212,396)
7/1/18 - 6/30/19	280,000	353,962	(73,962)	(286,358)
7/1/19 - 6/30/20	280,000	365,257	(85,257)	(371,615)
7/1/20 - 6/30/21	280,000	376,918	(96,918)	(468,534)
7/1/21 - 6/30/22	280,000	388,957	(108,957)	(577,491)
7/1/22 - 6/30/23	280,000	401,387	(121,387)	(698,878)
<b>Total</b>	<b>2,800,000</b>	<b>3,498,878</b>	<b>(698,878)</b>	

## **Observations/Findings**

The management of USTIF has initiated a number of cost containment initiatives and case reserving changes since 2003.

- An "early closing program" began in 2004 in which the PA BSF began working with the PA Department of Environmental Protection (DEP) to identify "stalled" sites and then putting them out for competitive bidding.



- A 60 day reporting requirement was instituted in 2003 (Pa Code 977.34) which requires that claims be filed with USTIF within 60 days after confirmation of the release or coverage will be denied.
- Fixed price contracts have been aggressively pursued since 2004. The process involves competitive bidding for the site assessment and remediation work. In addition to cutting costs, the use of fixed price contracts is expected to reduce the time required for claim closure.
- The EPA mandated tank upgrade (1998) and more frequent inspections by the DEP have served to reduce claim frequency. The mandated tank upgrade requires tank owners and operators to protect their tanks from corrosion and install spill-and-overflow prevention equipment. The owners and operators were given approximately ten years to comply with this requirement.
- USTIF modified its reserving philosophy in 2003. The current approach is to set-up a preliminary reserve of \$125K until claim eligibility is determined. Once eligibility is confirmed, the preliminary reserve is increased to \$175K. A more refined case reserve is then set within a year based on the specific circumstances of the claim.
- USTIF recently began tracking and reserving for long-term monitoring expenses associated with claims having an environmental covenant. These types of claims have Post Remedial Care Plans (PRCP) that could require site monitoring to be performed for a period of up to approximately 25 years. The case reserves for these expenses are set based on the frequency of monitoring events and the expected cost per event.

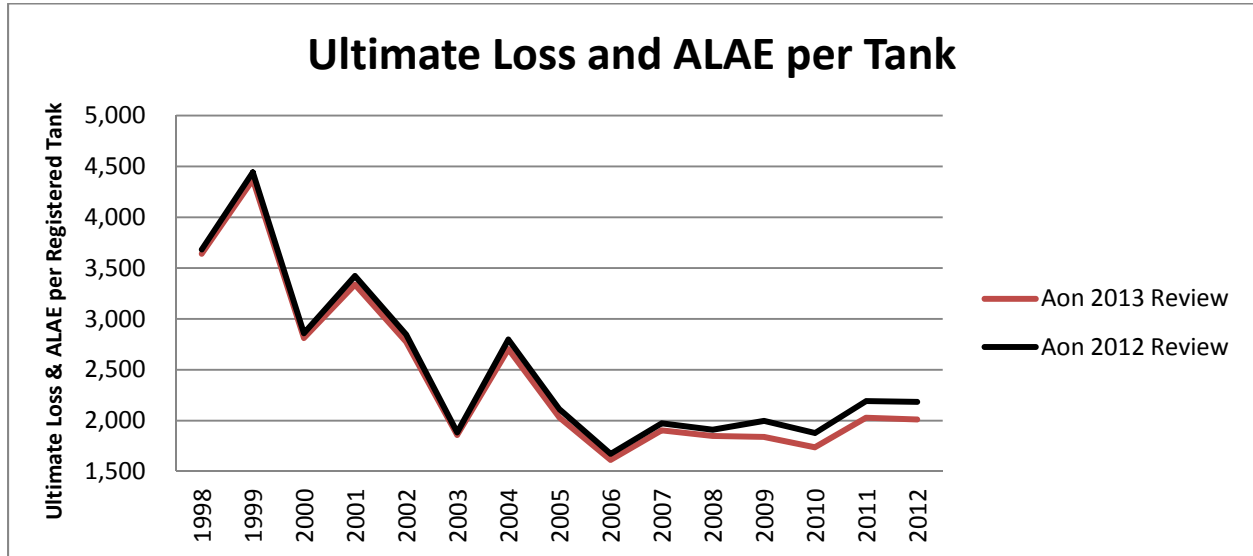
We have observed the following in our review of the data:

- Claim frequency has declined significantly since 1999. Although there is year-to-year variability, the frequency rate appears to have leveled off beginning approximately 2007/08. The number of filed claims during 2010 was especially low, whereas the last few years have filing rates more in line with 2007/08.
- There is evidence that claims are being closed more quickly and more recent periods have a higher percentage of paid loss to incurred loss compared to prior periods at the same age.
- The average expense cost per claim has been increasing. The PA BSF expects the increase in expense cost to lead to a reduction in indemnity costs (e.g., impact of fixed price contracts and early closing programs). There is evidence that the indemnity cost levels have been impacted favorably. We will continue to monitor the indemnity losses as they mature and evaluate the impact.
- USTIF experienced better than expected loss experience during the last twelve months. For instance, there was approximately \$15mln less reported loss than expected for the period 2003-2012 (approximately \$6mln less paid loss and expense). The graph below



shows a comparison of the current ultimate loss and ALAE estimates to those from one year ago.

The following graph presents a comparison the ultimate loss estimates to the estimates in our June 2012 review.





## IV. Program Description

Pennsylvania's Underground Storage Tank Indemnification Fund began operation in February of 1994 with the purpose of assisting Pennsylvania tank owners in meeting their financial responsibilities due to releases of regulated substances from underground storage tanks.

The fund covers corrective action and third party liability costs on eligible claims for \$1,500,000 above a \$5,000 deductible per tank, per occurrence. Claim payments are limited to \$1,500,000 per occurrence with an aggregate limit of \$1,500,000 or \$3,000,000, depending on whether an owner or operator has less than or more than 100 USTs, respectively. Prior to 1/2002, the limit was \$1,000,000 and prior to 1/1995, the deductible was \$10,000.

The Bureau of Special Funds sustains the operation of USTIF by means of the throughput and capacity fees paid by UST owners and operators, as well as the income generated from the investment of assets. The current throughput and capacity fees are \$0.011 per gallon and \$0.0825 per gallon, respectively. For the throughput fees, each distributor must assess the fee on regulated substance deliveries to regulated USTs. The bulk of throughput fees are generated by gasoline deliveries. For the capacity fee, the owner or operator of USTs storing heating oil, diesel fuel, kerosene, and used motor oil products must pay the annual fee per gallon of tank capacity. These fees have varied over time.

The Bureau of Special Funds also operates the Tank Installers' Indemnification Program to cover the financial liabilities for all certified Pennsylvania tank installers. TIIP went into effect on January 1, 2002. The same coverage as the tank owners is provided for installers. The current TIIP fee structure consists of activity and company fees. All certified companies must pay an annual fee of \$1,000. Activity fees are \$15 for tank removals and \$50 for installations or modifications.

The actuarial analysis for USTIF is in the main section of our review. The actuarial analysis for TIIP is provided in the Appendix.



## V. Data

Our analysis was performed using historical loss and exposure information provided by USTIF and their third party claims administrator, ICF Consulting. It's our understanding that the loss data provided was net of all applicable limits and deductibles.

The data used in our analysis included the following:

### **USTIF Data**

- Paid and incurred loss triangles valued as of 6/30/2013
- Paid ALAE expense triangles valued as of 6/30/2013
- Open, closed and reported claim count triangles valued as of 6/30/2013
- Detailed listing of fixed price contracts
- Detailed claims listing underlying the triangles and valued as of 6/30/2013
- Fee history and number of registered tanks by year
- Financial Statements as of June 30, 2013
- Investment income and growth rate assumptions
- GF Loan repayment schedules
- Expected future ICF consulting costs
- Detailed listing of claims with Post Remedial Care (PRC) requirements valued as of 6/30/2013

**Note:** The paid PRC costs are included in both the data triangles and detailed loss runs. The PRC case reserves are only included in the data triangles and detailed loss runs if they correspond to open claims. ICF has indicated that the Fund has agreed to keep claims open that have PRC activity more frequently than once a year. The detailed listing of PRC claims provided by ICF includes the paid and incurred values for all known claims with a PRC component.

### **TIIP Data**

- Detailed listing of all TIIP claims valued as of 6/30/2013
- Historical fee revenue by fiscal year
- Number of installations, major modifications & tank removals/closures by year



- Projected number of certified companies for 2013/14
- Projected Unallocated Loss Adjustment Expense (ULAE) for 2013/14
- Expected growth rate assumptions for revenue and exposures





## VI. Actuarial Analysis

### Overview

This analysis applies multiple actuarial reserving methods to arrive at a range of ultimate loss or ALAE indications by policy period. A final ultimate loss or ALAE estimate is selected based on a review of the indications under the methods considering the strengths and weaknesses of each method and the circumstances surrounding the data. Specifically, we employed the following actuarial methods:

- Paid Development Method (Loss and ALAE)
- Incurred Development Method (Loss Only)
- Reported Claim Count Development Method
- Incurred Generalized Cape Cod Method (Loss Only)
- Paid Generalized Cape Cod Method (Loss and ALAE)

A brief description of each method is provided in the following paragraphs.

### Methods/Models of Estimating Unpaid Loss and ALAE Expense

#### **Development Methods**

The distinguishing characteristic of the development method is that ultimate estimates for each period are produced from recorded values assuming that future claims' development is similar to prior years' development. In this method, development triangles are used to track the development history of a specific group of claims. The underlying assumption in the development technique is that claims recorded to date will continue to develop in a similar manner in the future. That is, the development technique assumes that the relative change in a given year's claims from one evaluation point to the next is similar to the relative change in prior years' claims at similar evaluation points.

An implicit assumption in the development technique is that, for an immature policy year, the claims activity observed thus far tells you something about the claims activity yet to be observed. As a result, the development method is considered a method that is responsive to the known claims data. For instance, the paid development method tends to give a very high (or very low) estimate for an immature year with a very high (or very low) volume of payments. Other important assumptions of the development method include: consistent claim processing, a stable mix of types of claims, stable policy limits, and stable reinsurance (or excess insurance) retention limits throughout the experience period.

The development method is implemented using the following steps:



1. Compile the claims data in a development triangle to compare the movements in each prior period's data at equal age intervals.
2. Calculate Age-to-Age factors at each age for the historical periods.
3. Review the factors at each age and select the age factors that will apply in the future.
4. Select a tail factor that represents the development that will occur beyond the age horizon provided by the historical data.
5. Calculate the cumulative development factors ("Age-to-Ultimate" factors) by combining the incremental Age-to-Age factors.
6. Apply the Age-to-Ultimate factors to the claims data at the current valuation to arrive at the ultimate estimates.

### **Generalized Cape Cod Method**

As discussed above, the development methods can be very responsive to the claims data. This may not be a desirable characteristic for immature years in which the claims data does not provide predictive value. This is particularly true for long-tailed lines of business such as environmental coverage types which are typically slow to develop. An alternative approach which is not responsive to the claims data would be to assume an a priori or predetermined ultimate outcome until the policy period's data becomes predictive. ("Expected Method").

The Generalized Cape Cod (GCC) Method can be thought of as a mixture of the Expected and Development approaches. The GCC method splits the ultimate estimate into two components: the known component and the expected unknown component. The split between the known and unknown components is determined by the development patterns identified in the development method. The inclusion of the expected unknown component adds stability to the method and the split based on the development pattern serves to add more or less stability based on the expected predictive value of the loss data.

The unknown component is estimated by combining the development method ultimate estimates from "nearby" periods after adjustments are made for differences in exposure and cost levels. For instance, the differences could be due to inflation, coverage changes or other environmental factors. When the GCC method is implemented, the weight given to nearby periods in the calculation of the unknown component is controlled by the value assigned to the Cape Cod decay factor. The differences in exposure and cost levels are controlled through the use of an exposure proxy and trend index.

## **Cash Flow and Actuarial Assumptions**

The main assumptions of our USTIF cash flow and actuarial analyses follow; please see the Description of Appendix Exhibits section for details on the TIIP analysis.



- The future throughput revenue is difficult to project given the recent fluctuations in the price of oil, which along with the overall state of the economy affects the consumption of petroleum products. Our assumptions are based on the Energy Information Administration's (EIA) review of the Middle Atlantic projected motor gasoline consumption growth rate. The EIA provides an annual energy outlook which projects the consumption growth rate under a number of scenarios. Based on a review of the results, we have selected a long-term negative growth rate of 1.0%. The 2013/14 throughput revenue is expected to be \$54.3mln based on a review of the historical information and discussions with USTIF.
- The future number of registered tanks is expected to grow at a rate of 0% based on discussions with USTIF. As a result, the capacity fee growth rate is also assumed to be 0% in the absence of fee increases. The 2013/14 capacity fee revenue is expected to be \$6.3mln based on a review of the historical information and discussions with USTIF.
- The return on cash and invested assets is assumed to be 4% based on discussions with USTIF. We have also evaluated the sensitivity of the results to an increase or decrease in this rate of 0.5%.
- The Department of Community and Economic Development (DCED) loan balance is now \$0.
- There is uncertainty regarding the principal repayment plan for the General Fund loan. The current expectation is that the GF loan will be renegotiated in 2014 and that future payments will begin to be made during fiscal year 2014/15. Our model assumes \$5.7mln will be paid per year beginning in 2014. The terms of this possible repayment scenario were provided by USTIF. The interest rate applied to the outstanding loan balance and the interest receivable is assumed to be 0.5%. This rate is tied to a Treasury Fund and was provided by PA BSF.
- The expense trend rate applicable to both claims administration and other expenses is assumed to be 4% based on discussions with USTIF. The other expense cost expectations for 2013/14 were selected based on a review of the financial statements and discussions with USTIF. Claims administration cost projections are discussed below.
- The income and cash flow analyses include an item titled "DEP Assistance". These expected payments are a result of Senate Bill 722 passed in 2005. Section 5 of the Act reads "The department may request the board to reimburse the department up to \$3mln annually for its cost related to investigating, determining responsibility, overseeing remediation and third party response and closing out cases of spills and leaks related to storage tanks beginning in fiscal year 2007-2008." There is considerable uncertainty in the expected payments related to this Bill due to their dependence on factors such as the number of claims, number of grants applied for, and the amount of money received from the General Fund. In recent years, the bulk of the DEP Assistance payments have fallen under the base allocation (sections 710 (b)(b.1)(b.2) of the Act) and investigation and closure allocation (section 713 (a)) categories. The assistance in these categories is



not to exceed \$5.5mln and \$3.0mln, respectively. Based on discussions with USTIF, we have made the following assumptions: the DEP Assistance for 2013/14 is projected to be approximately \$5.7mln with a trend of approximately 2% per annum for subsequent years. The trend rate reflects the caps applicable to the base allocation and investigation and closure allocation categories.

- Our pro forma balance sheet includes a liability titled "other liabilities" which captures the estimated liability created by USTIF's four week lag in processing payments. The liability is set equal to 7.8% of the loss and ALAE payments for the prior twelve month period, with an additional provisional for other amounts payable (e.g., DEP Assistance).
- USTIF provided estimated annual claims administration costs for the period 7/1/2013 through the end of our projection period. The latest agreement with their TPA, ICF Consulting, has an effective date of 1/2007. Under that contract, ICF received a per claim payment for each open file ("takeover fee"). ICF was then entitled to additional takeover fees paid every other year based on the number of claims remaining open. These fees are in addition to vendor fees received for claim closures, new claims assigned and other administrative and miscellaneous charges. The impact of the takeover fees on TPA costs is that the costs will tend to be higher one year and then drop the following year with this two year pattern repeating. The estimated annual claims administration costs provided by USTIF follow this pattern out through the 2017 contract end date with each two year block repeating. Subsequently, a 4% annual expense trend is applied through the end of the projection period. USTIF is currently in the middle of a request for proposal process for TPA services. Although that process could ultimately impact future TPA fees, the impact is not predictable at this time.
- The prospective frequency and severity trends were selected based on a review of the trends in the historical data and our actuarial estimates. The selected trend rates are as follows: claim frequency trend is 0%, loss severity trend is +3.0% and ALAE severity trend is +4.0%. These trend rates are applied to the selected 2013/14 claim severities and frequency rate to give the future loss and ALAE projections. Please see Pro Form Exhibit 8 for more details.
- The "other cash" item in the cash flow analysis represents recovery amounts from subrogation and Federal EPA / Coast Guard funds (catastrophic release sites). These values tend to vary quite a bit from year to year. For purposes of our analysis, we have assumed \$150,000 of other cash per year throughout the projection period. These values were selected based on discussions with USTIF and are intended to be placeholders which do not materially impact the results of our analysis.
- The estimates in this report include a provision for long-term monitoring expenses associated with claims having an environmental covenant. These types of claims have Post Remedial Care Plans (PRCP) that could require site monitoring to be performed for a period of up to approximately 25 years. We have discussed this exposure with management and the Fund's third party administrator. USTIF and ICF are now tracking these costs and setting up case reserves. Please see the Data section and Exhibit 29 for more details.



## VII. Description of Exhibits

### Description of Exhibits - USTIF

In this section, we provide a description of the exhibits that support the USTIF loss and ALAE expense estimates. The exhibit discussion is presented in reverse order to match the natural flow of our analysis from data to estimates.

#### **Data Summary – Post Remedial Care Costs (Exhibit 29)**

Exhibit 29.1 summarizes the PRC costs by policy period and claim status. As noted in the data section, unlike PRC payments, the PRC case reserves associated with closed claims are not included in the main claims data. The additional PRC loss dollars for closed claims are considered in Exhibit 2 when we evaluate the incurred loss indications.

Exhibit 29.2 summarizes the PRC costs by PRC year. The PRC year is assigned based on the PRC agreement date.

#### **Data Summary – Fixed Price Contracts Through Close (Exhibit 28)**

Exhibit 28 summarizes the number of fixed price contracts for each policy year. The counts shown are the incremental number of fixed price contracts entered into as of each age based on the contract date of each agreement. For instance, the year 2 value for 2005 represents the number of fixed price contracts entered into during the period from 1/1/2006 through 12/31/2006. Only fixed price contracts expected to result in claim closure are included in this exhibit.

#### **Data Summary - Loss, ALAE Expense and Claim Counts (Exhibits 25 through 27)**

Exhibit 27 provides a summary of the claim count data by status type as of 6/30/2013. The total number of claims has been at a lower level in recent periods. According to USTIF, some possible drivers of this decrease are the mandatory tank upgrade instituted in 1998, more frequent inspections by the DEP and the 60 day reporting requirement which began in 2003.

The total number of open claims at recent valuation dates is presented in Exhibit 26. The number of open claims as of each valuation date has been decreasing since 2006. The decrease appears to be driven by USTIF's transition to fixed-priced contracts as well as the effects of the early closing program that started in 2004. Under the latter, USTIF works with the DEP to identify "stalled" sites and then puts them out for competitive bidding.

Exhibit 25 summarizes the loss and ALAE expense data as of 6/30/2013. Both paid and case incurred loss is summarized. USTIF does not set case reserves for ALAE, so only paid ALAE expense is data is summarized.

#### **Data Summary - Supplemental Data Triangles (Exhibits 16 through 24)**

Exhibits 16 through 24 present the following data triangles:



- Average Paid ALAE per Reported Claim (Exhibit 24)
- Ratio of Paid ALAE to Paid Loss (Exhibit 23)
- Average Case Outstanding Loss per Open Claim (Exhibit 22)
- Average Paid Loss per Closed Claim (Exhibit 21)
- Average Incurred Loss per Reported Claim (Exhibit 20)
- Ratio of Closed to Reported Claim Counts (Exhibit 19)
- Ratio of Paid Loss to Incurred Loss (Exhibit 18)
- Open Claim Counts (Exhibit 17)
- Closed Claim Counts (Exhibit 16)

#### **Development Factors (Exhibits 11 through 15)**

Exhibits 12 through 15 provide our review of the historical loss, ALAE expense and claim count development patterns. Age-to-Age development factors are selected at each age based on a review of the data and our actuarial judgment. Age-to-Ultimate factors are then computed by combining the Age-to-Age factors multiplicatively. The specific reviews are as follows:

- Paid ALAE Expense Development Factors (Exhibit 15)
- Reported Claim Count Development Factors (Exhibit 14)
- Paid Loss Development Factors (Exhibit 13)
- Incurred Loss Development Factors (Exhibit 12)

Exhibit 11 summarizes the selected cumulative development factors based on these reviews.

#### **Generalized Cape Cod Method - Paid ALAE (Exhibit 10)**

Exhibit 10 presents the estimated ultimate ALAE using the GCC method applied to the paid ALAE expense. We use the ultimate loss estimates from Exhibit 2 as the exposure proxy for this analysis. The exposure proxy is adjusted for the change in exposure associated with the coverage limit increase occurring in 2002. This adjustment is based on an increased limit adjustment factor (ILF) selected based on a review of the available data.

#### **Paid ALAE Development Method (Exhibit 9)**



The paid ALAE development method is presented in Exhibit 9. The paid ALAE development factors at each age are multiplied by the actual paid ALAE as of 6/30/2013 to estimate the ultimate ALAE expense.

#### **Summary of Ultimate ALAE Indications (Exhibit 8)**

Exhibit 8 summarizes the estimated ultimate ALAE using the Paid Development method and the Cape Cod method. The ultimate ALAE expense is then selected by policy period based on a review of the indications and our actuarial judgment.

#### **Reported Claim Count Development Method (Exhibit 7)**

The Reported Claim Count Development method is presented in Exhibit 7. The claim count development factors at each age are multiplied by the actual claim counts as of 6/30/2013 to estimate the ultimate number of claims. Policy periods are on a claims-made basis, so only the most recent period is subject to development. The ultimate number of claims is used as the exposure proxy for the Generalized Cape Cod loss methods.

#### **Generalized Cape Cod Method - Paid Loss (Exhibit 6)**

Exhibit 6 presents the estimated ultimate loss using the GCC method applied to paid loss. We use the ultimate claim count estimates from Exhibit 7 as the exposure proxy for this analysis. The exposure proxy is adjusted for the change in exposure associated with the coverage limit increase occurring in 2002. This adjustment is based on an increased limit adjustment factor selected based on a review of the available data.

#### **Generalized Cape Cod Method - Reported Loss (Exhibit 5)**

Exhibit 5 presents the estimated ultimate loss using the GCC method applied to reported loss. We use the ultimate claim count estimates from Exhibit 7 as the exposure proxy for this analysis. The exposure proxy is adjusted for the change in exposure associated with the coverage limit increase occurring in 2002. This adjustment is based on an increased limit adjustment factor selected based on a review of the available data.

#### **Paid Loss Development Method (Exhibit 4)**

The Paid Loss Development method is presented in Exhibit 4. The paid loss development factors at each age are multiplied by the actual paid loss as of 6/30/2013 to estimate the ultimate loss.

#### **Incurred Loss Development Method (Exhibit 3)**

The Incurred Loss Development method is presented in Exhibit 3. The incurred loss development factors at each age are multiplied by the actual incurred loss as of 6/30/2013 to estimate the ultimate loss.

#### **Summary of Ultimate Loss Indications (Exhibit 2)**





Exhibit 2 summarizes the estimated ultimate loss using the Development methods and the GCC methods. The ultimate loss is then selected by policy period based on a review of the policy year indications and our actuarial judgment.

### **Summary of Estimated Loss and ALAE Expense Reserves (Exhibit 1)**

Exhibit 1(a) summarizes the ultimate loss estimates and presents the corresponding paid, unpaid, reported and unreported loss components. Exhibit 1(b) summarizes the ultimate ALAE expense estimates and presents the corresponding paid and unpaid expense components.

## **Description of Pro Forma Exhibits - USTIF**

In this section, we provide a description of the exhibits that support the balance sheet, income statement and cash flow statement as of June 30, 2013 and the subsequent twenty year financial projections.

### **Paid Loss & ALAE (Pro Forma 13)**

Pro Forma 13 provides a summary of the paid loss, paid ALAE and the combined total by policy period. The values shown are taken directly from Exhibit 25.

### **Summary of Estimated Ultimate Loss & ALAE (Pro Forma 12)**

Pro Forma 12 provides a summary of the estimated ultimate loss, estimated ultimate ALAE and the combined total by policy period. The values shown are taken directly from Exhibit 2 and Exhibit 8.

### **Estimated Payment Pattern (Pro Forma 10 and Pro Forma 11)**

Pro Forma Exhibit 11 presents our review of the historical loss & ALAE payments. The payment percentages shown in the bottom triangle are stated relative to the ultimate loss and ALAE for each policy period. The selected payment pattern is based on a review of the data values and our professional judgment. The selected pattern is summarized in Pro Forma Exhibit 10. An interpolated pattern is also presented for ages other than those presented in Pro Forma Exhibit 11.

### **Frequency and Severity Trend Selections (Pro Forma 9)**

Pro Forma Exhibit 9 presents the historical claim frequency, average loss severity and average ALAE severity values implied by our estimates. Trend rates are selected based on a review of the empirical trends and our professional judgment. The selected trend rates are used to project ultimate loss and ALAE for the future periods.

### **Projected Ultimate Loss & ALAE for Future Periods (Pro Forma 7 and Pro Forma 8)**





Pro Forma Exhibit 8 presents the selection of the 2013/14 ultimate claim frequency, ultimate loss severity and ultimate ALAE severity. The selections are based on a review of the historical statistics trended to 2013/14 frequency and cost levels.

Pro Forma Exhibit 7 presents the loss and ALAE projections for the period July 1, 2013-14 through July 1, 2032-33. The projections are based on the assumptions in Pro Forma Exhibit 8 and Pro Forma Exhibit 9.

#### **Projected Payments for Unpaid Loss and ALAE at 6/30/2013 (Pro Forma 3 & Pro Forma 5)**

Pro Forma Exhibit 5 computes the loss and ALAE payment patterns for each historical period based on the payment patterns selected in Pro Forma Exhibit 10. Pro Forma Exhibit 3 applies these patterns to the unpaid loss as of 6/30/2013 to project the payment streams for the unpaid loss and ALAE as of 6/30/2013.

#### **Projected Payments of Loss and ALAE for Future Periods (Pro Forma 4 & Pro Forma 6) )**

Pro Forma Exhibit 6 computes the loss and ALAE payment patterns for each future period based on the payment patterns presented in Pro Forma Exhibit 10. Pro Forma Exhibit 4 applies these patterns to the future loss and ALAE projections to estimate the payment streams for the loss and ALAE associated with the future exposure periods.

#### **Fee Revenue Summary and Projections (Pro Forma 2)**

Pro Forma Exhibit 2 summarizes the capacity fees and throughput fees for the historical years. The fees are then restated at current rate levels. Based on review of these values, the 2013/14 expected revenue level is selected.

#### **Cash Flow Statement (Pro Forma 1.3)**

Pro Forma Exhibit 1.3 provides the Cash Flow Statements for fiscal year beginning July 1, 2013 through July 1, 2032 based on our analysis. The projections assume that 1) the current fee structure will be in effect during the entire period and 2) the GF Loan will be renegotiated in 2014 and that future payments will consist of \$5.7mln per year beginning in fiscal year 2014/15. Under these assumptions, the final GF Loan payment is expected to occur in fiscal year 2028/29. A summary of the results under other fee structures are included in the Executive Summary.

#### **Income Statement (Pro Forma 1.2)**

Pro Forma Exhibit 1.2 provides the Income Statements for each fiscal year beginning July 1, 2013 through July 1, 2032 based on our analysis. The projections assume that 1) the current fee structure will be in effect during the entire period and 2) the GF Loan will be renegotiated in 2014 and that future payments will consist of \$5.7mln per year beginning in fiscal year 2014/15. Under these assumptions, the final GF Loan payment is expected to occur in fiscal year 2028/29. A summary of the results under other fee structures are included in the Executive Summary.



### **Balance Sheet (Pro Forma 1.1)**

Pro Forma Exhibit 1.1 provides the Balance Sheet Statements for each fiscal year ending June 30, 2013 through June 30, 2033 based on our analysis. The projections assume that 1) the current fee structure will be in effect during the entire period and 2) the GF Loan will be renegotiated in 2014 and that future payments will consist of \$5.7mln per year beginning in fiscal year 2014/15. Under these assumptions, the final GF Loan payment is expected to occur in fiscal year 2028/29. A summary of the results under other fee structures are included in the Executive Summary.

## **Description of Appendix Exhibits - TIIP**

In this section, we provide a description of the exhibits that support the projected annual TIIP underwriting income for the ten year period beginning July 1, 2013.

### **Exposure Summary (Appendix Exhibit 6)**

Appendix Exhibit 6 summarizes the historical fee revenue and the number of tank removals, modifications and installations by period. The number of activities is projected for the 2013/14 period based on a review of the data and discussions with TIIP representatives.

### **Summary of Claims Data (Appendix Exhibit 5)**

Appendix Exhibit 5 provides a summary of the detailed TIIP claims data valued as of June 30, 2013. There have been twenty six filed claims since 2002 with eight claims open or on appeal. The total reported loss & paid ALAE expense is approximately \$2.1mln, which represents a decrease of approximately \$247K compared to the June 2012 totals.

### **Estimated Loss Rate (Appendix Exhibit 4)**

Appendix Exhibit 4 provides the support for our selected 2013/14 loss rate. The loss rate represents the expected ultimate loss per installed tank for the 2013/14 policy year. The estimation procedure is based on methods similar to those used in the USTIF analysis. Once the ultimate loss estimates are derived by policy year, they are trended to adjust for differences in cost levels and expressed relative to the exposure base (number of installed tanks). The 2013/14 loss rate is selected based on a review of the indications and our professional judgment.

### **Revenue Projections for 2013/14 (Appendix Exhibit 3)**

The projected revenue for 2013/14 is based on the current fee structure and the projected number of activities / licensed companies is presented in Appendix Exhibit 3.

### **Loss and Expense Projections (Appendix Exhibit 2)**

Appendix Exhibit 2 presents the loss and expense projections for the period 7/1/2013 through 6/30/2023. The number of tanks installed is expected to trend forward at 0% based on



discussions with TIIP representatives. The loss estimates are based on the loss rate selected in Appendix Exhibit 4. The annual ALAE expense costs are assumed to be at the same levels (relative to loss) as those implied in the USTIF projections. The estimated ULAE expense expectations were provided by TIIP.

#### **Summary of Results (Appendix Exhibit 1)**

The revenue and loss and expense projections are combined and summarized in Appendix Exhibit 1.



## VIII. Exhibits



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Balance Sheet (Under Current Fee Structure)**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
as of:	6/30/13	6/30/14	6/30/15	6/30/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23
Cash & Invested Assets	163,845,231	165,987,202	174,593,476	179,618,921	183,103,043	184,471,112	183,644,607	181,220,280	177,261,561	171,893,331	165,932,764
DCED Loan Receivable	-	-	-	-	-	-	-	-	-	-	-
General Fund Loan Receivable	67,500,000	67,500,000	61,800,000	56,100,000	50,400,000	44,700,000	39,000,000	33,300,000	27,600,000	21,900,000	16,200,000
Interest Receivable on GF Loan	14,113,452	14,521,519	14,917,377	15,286,714	15,629,397	15,945,294	16,234,271	16,496,192	16,730,923	16,938,328	17,118,269
Total Assets	245,458,683	248,008,721	251,310,853	251,005,635	249,132,441	245,116,407	238,878,878	231,016,472	221,592,484	210,731,658	199,251,034
Loss Outstanding	434,585,955	433,888,790	434,521,123	435,335,183	435,326,823	436,151,007	437,485,861	440,069,312	444,095,479	449,818,785	458,170,101
Other Liabilities	6,853,134	8,195,256	8,220,828	8,340,006	8,541,718	8,618,688	8,725,249	8,778,879	8,822,144	8,850,494	8,811,323
Total Liabilities	441,439,089	442,084,046	442,741,951	443,675,189	443,868,541	444,769,695	446,211,110	448,848,191	452,917,624	458,669,279	466,981,424
Undiscounted Surplus (Deficit)	(195,980,406)	(194,075,325)	(191,431,098)	(192,669,554)	(194,736,100)	(199,653,289)	(207,332,232)	(217,831,719)	(231,325,139)	(247,937,621)	(267,730,391)
Discount in Loss Outstanding (4%)	88,865,879	87,807,012	87,105,578	86,757,992	86,803,997	87,272,844	88,168,333	89,486,745	91,205,924	93,294,337	95,696,105
Discounted Surplus (Deficit)	(107,114,527)	(106,268,313)	(104,325,520)	(105,911,562)	(107,932,103)	(112,380,445)	(119,163,899)	(128,344,973)	(140,119,215)	(154,643,284)	(172,034,286)
as of:		6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31	6/30/32	6/30/33
Cash & Invested Assets		158,132,332	148,787,485	137,234,419	122,696,620	105,526,834	84,606,645	54,447,697	20,110,229	(18,714,036)	(62,323,310)
DCED Loan Receivable		-	-	-	-	-	-	-	-	-	-
General Fund Loan Receivable		10,500,000	4,800,000	-	-	-	-	-	-	-	-
Interest Receivable on GF Loan		17,270,611	17,395,214	16,591,940	10,960,650	5,301,203	-	-	-	-	-
Total Assets		185,902,943	170,982,699	153,826,359	133,657,270	110,828,037	84,606,645	54,447,697	20,110,229	(18,714,036)	(62,323,310)
Loss Outstanding		468,026,749	479,830,501	493,073,999	507,168,413	522,575,575	538,733,065	555,453,157	572,825,209	590,807,925	609,385,411
Other Liabilities		8,864,972	8,889,581	8,959,358	9,080,837	9,172,251	9,313,685	9,476,109	9,638,117	9,810,109	9,990,323
Total Liabilities		476,891,721	488,720,082	502,033,357	516,249,249	531,747,826	548,046,749	564,929,266	582,463,325	600,618,034	619,375,734
Undiscounted Surplus (Deficit)		(290,988,777)	(317,737,383)	(348,206,998)	(382,591,979)	(420,919,789)	(463,440,105)	(510,481,569)	(562,353,096)	(619,332,070)	(681,699,044)
Discount in Loss Outstanding (4%)		98,357,050	101,235,271	104,288,854	107,496,669	110,840,057	114,302,017	117,880,551	121,576,237	125,389,334	129,321,937
Discounted Surplus (Deficit)		(192,631,728)	(216,502,112)	(243,918,144)	(275,095,311)	(310,079,732)	(349,138,088)	(392,601,017)	(440,776,859)	(493,942,736)	(552,377,107)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Income Statement (Under Current Fee Structure)**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>Fiscal Year Beginning:</b>	<b>7/1/13</b>	<b>7/1/14</b>	<b>7/1/15</b>	<b>7/1/16</b>	<b>7/1/17</b>	<b>7/1/18</b>	<b>7/1/19</b>	<b>7/1/20</b>	<b>7/1/21</b>	<b>7/1/22</b>	
Capacity Fee Revenue	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	
Throughput Fee Revenue	54,300,000	53,757,000	53,219,430	52,687,236	52,160,363	51,638,760	51,122,372	50,611,148	50,105,037	49,603,987	
Subtotal	60,600,000	60,057,000	59,519,430	58,987,236	58,460,363	57,938,760	57,422,372	56,911,148	56,405,037	55,903,987	
Incurred Losses & ALAE	(53,088,167)	(54,745,511)	(56,455,163)	(58,218,795)	(60,038,136)	(61,914,968)	(63,851,133)	(65,848,531)	(67,909,125)	(70,034,944)	
Claim Administration	(3,900,000)	(2,300,000)	(3,900,000)	(2,300,000)	(2,800,000)	(2,912,000)	(3,028,480)	(3,149,619)	(3,275,604)	(3,406,628)	
Other Expenses	(1,690,000)	(1,757,600)	(1,827,904)	(1,901,020)	(1,977,061)	(2,056,143)	(2,138,389)	(2,223,925)	(2,312,882)	(2,405,397)	
Subtotal	(58,678,167)	(58,803,111)	(62,183,067)	(62,419,815)	(64,815,197)	(66,883,112)	(69,018,002)	(71,222,075)	(73,497,611)	(75,846,969)	
Underwriting Income	1,921,833	1,253,889	(2,663,637)	(3,432,580)	(6,354,834)	(8,944,352)	(11,595,630)	(14,310,926)	(17,092,574)	(19,942,982)	
DCED Loan Interest Payments	-	-	-	-	-	-	-	-	-	-	
Interest Receivable on GF Loan	408,067	395,858	369,337	342,684	315,897	288,976	261,921	234,731	207,405	179,942	
DEP Assistance	(5,700,000)	(5,808,000)	(5,920,320)	(6,037,133)	(6,158,618)	(6,284,963)	(6,416,361)	(6,553,016)	(6,695,136)	(6,842,942)	
Investment Income	6,467,303	6,678,053	6,945,341	7,112,195	7,207,336	7,217,955	7,154,213	7,029,056	6,846,174	6,624,041	
Total Income	3,097,203	2,519,799	(1,269,279)	(2,014,834)	(4,990,218)	(7,722,383)	(10,595,856)	(13,600,155)	(16,734,132)	(19,981,941)	

<b>Fiscal Year Beginning:</b>	<b>7/1/23</b>	<b>7/1/24</b>	<b>7/1/25</b>	<b>7/1/26</b>	<b>7/1/27</b>	<b>7/1/28</b>	<b>7/1/29</b>	<b>7/1/30</b>	<b>7/1/31</b>	<b>7/1/32</b>	<b>Total</b>
Capacity Fee Revenue	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	126,000,000
Throughput Fee Revenue	49,107,947	48,616,867	48,130,699	47,649,392	47,172,898	46,701,169	46,234,157	45,771,815	45,314,097	44,860,956	988,765,329
Subtotal	55,407,947	54,916,867	54,430,699	53,949,392	53,472,898	53,001,169	52,534,157	52,071,815	51,614,097	51,160,956	1,114,765,329
Incurred Losses & ALAE	(72,228,078)	(74,490,690)	(76,825,011)	(79,233,345)	(81,718,073)	(84,281,652)	(86,926,620)	(89,655,598)	(92,471,292)	(95,376,498)	(1,445,311,328)
Claim Administration	(3,542,893)	(3,684,609)	(3,831,993)	(3,985,273)	(4,144,684)	(4,310,471)	(4,482,890)	(4,662,206)	(4,848,694)	(5,042,642)	(73,508,687)
Other Expenses	(2,501,613)	(2,601,677)	(2,705,744)	(2,813,974)	(2,926,533)	(3,043,595)	(3,165,338)	(3,291,952)	(3,423,630)	(3,560,575)	(50,324,953)
Subtotal	(78,272,584)	(80,776,976)	(83,362,748)	(86,032,593)	(88,789,290)	(91,635,718)	(94,574,849)	(97,609,755)	(100,743,616)	(103,979,714)	(1,569,144,968)
Underwriting Income	(22,864,637)	(25,860,109)	(28,932,050)	(32,083,201)	(35,316,393)	(38,634,549)	(42,040,692)	(45,537,940)	(49,129,518)	(52,818,758)	(454,379,639)
DCED Loan Interest Payments	-	-	-	-	-	-	-	-	-	-	-
Interest Receivable on GF Loan	152,341	124,603	(803,274)	(5,631,290)	(5,659,447)	(5,301,203)	-	-	-	-	(14,113,452)
DEP Assistance	(6,996,660)	(7,156,526)	(7,322,787)	(7,495,698)	(7,585,525)	(7,648,946)	(7,714,904)	(7,783,500)	(7,854,840)	(7,929,034)	(137,904,909)
Investment Income	6,354,218	6,018,036	5,608,273	5,096,687	4,474,970	3,728,107	2,726,556	1,461,920	27,376	(1,588,968)	103,188,843
Total Income	(23,354,738)	(26,873,996)	(31,449,838)	(40,113,503)	(44,086,395)	(47,856,591)	(47,029,040)	(51,859,520)	(56,956,982)	(62,336,759)	(503,209,158)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Cash Flow Statement (Under Current Fee Structure)**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>Fiscal Year Beginning:</b>	<b>7/1/13</b>	<b>7/1/14</b>	<b>7/1/15</b>	<b>7/1/16</b>	<b>7/1/17</b>	<b>7/1/18</b>	<b>7/1/19</b>	<b>7/1/20</b>	<b>7/1/21</b>	<b>7/1/22</b>	
Initial Cash & Invested Assets	163,845,231	165,987,202	174,593,476	179,618,921	183,103,043	184,471,112	183,644,607	181,220,280	177,261,561	171,893,331	
Capacity Fee Revenue	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	
Throughput Fee Revenue	54,300,000	53,757,000	53,219,430	52,687,236	52,160,363	51,638,760	51,122,372	50,611,148	50,105,037	49,603,987	
Paid Losses & ALAE	(53,785,332)	(54,113,179)	(55,641,102)	(58,227,156)	(59,213,952)	(60,580,114)	(61,267,682)	(61,822,363)	(62,185,820)	(61,683,627)	
Paid Expenses	(5,590,000)	(4,057,600)	(5,727,904)	(4,201,020)	(4,777,061)	(4,968,143)	(5,166,869)	(5,373,544)	(5,588,486)	(5,812,025)	
DCED Loan Interest Payments	-	-	-	-	-	-	-	-	-	-	
Interest Receivable on GF Loan	-	-	-	-	-	-	-	-	-	-	
GF Loan Principal Payments	-	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	
DCED Loan Principal Payments	-	-	-	-	-	-	-	-	-	-	
DEP Assistance	(5,700,000)	(5,808,000)	(5,920,320)	(6,037,133)	(6,158,618)	(6,284,963)	(6,416,361)	(6,553,016)	(6,695,136)	(6,842,942)	
Other Cash	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	
Investment Income	6,467,303	6,678,053	6,945,341	7,112,195	7,207,336	7,217,955	7,154,213	7,029,056	6,846,174	6,624,041	
Total Cash Flow	2,141,971	8,606,274	5,025,445	3,484,122	1,368,069	(826,505)	(2,424,327)	(3,958,719)	(5,368,231)	(5,960,567)	
Ending Cash & Invested Assets	165,987,202	174,593,476	179,618,921	183,103,043	184,471,112	183,644,607	181,220,280	177,261,561	171,893,331	165,932,764	
<b>Fiscal Year Beginning:</b>	<b>7/1/23</b>	<b>7/1/24</b>	<b>7/1/25</b>	<b>7/1/26</b>	<b>7/1/27</b>	<b>7/1/28</b>	<b>7/1/29</b>	<b>7/1/30</b>	<b>7/1/31</b>	<b>7/1/32</b>	<b>Total - All Years</b>
Initial Cash & Invested Assets	165,932,764	158,132,332	148,787,485	137,234,419	122,696,620	105,526,834	84,606,645	54,447,697	20,110,229	(18,714,036)	163,845,231
Capacity Fee Revenue	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	126,000,000
Throughput Fee Revenue	49,107,947	48,616,867	48,130,699	47,649,392	47,172,898	46,701,169	46,234,157	45,771,815	45,314,097	44,860,956	988,765,329
Paid Losses & ALAE	(62,371,430)	(62,686,938)	(63,581,513)	(65,138,931)	(66,310,911)	(68,124,162)	(70,206,528)	(72,283,546)	(74,488,575)	(76,799,012)	(1,270,511,872)
Paid Expenses	(6,044,506)	(6,286,286)	(6,537,738)	(6,799,247)	(7,071,217)	(7,354,066)	(7,648,229)	(7,954,158)	(8,272,324)	(8,603,217)	(123,833,640)
DCED Loan Interest Payments	-	-	-	-	-	-	-	-	-	-	-
Interest Receivable on GF Loan	-	-	900,000	5,700,000	5,700,000	5,327,709	-	-	-	-	17,627,709
GF Loan Principay Payments	5,700,000	5,700,000	4,800,000	-	-	-	-	-	-	-	67,500,000
DCED Loan Principal Payments	-	-	-	-	-	-	-	-	-	-	-
DEP Assistance	(6,996,660)	(7,156,526)	(7,322,787)	(7,495,698)	(7,585,525)	(7,648,946)	(7,714,904)	(7,783,500)	(7,854,840)	(7,929,034)	(137,904,909)
Other Cash	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	3,000,000
Investment Income	6,354,218	6,018,036	5,608,273	5,096,687	4,474,970	3,728,107	2,726,556	1,461,920	27,376	(1,588,968)	103,188,843
Total Cash Flow	(7,800,432)	(9,344,847)	(11,553,066)	(14,537,798)	(17,169,786)	(20,920,190)	(30,158,947)	(34,337,468)	(38,824,265)	(43,609,273)	(226,168,541)
Ending Cash & Invested Assets	158,132,332	148,787,485	137,234,419	122,696,620	105,526,834	84,606,645	54,447,697	20,110,229	(18,714,036)	(62,323,310)	(62,323,310)



## Pennsylvania Insurance Department / Bureau of Special Funds USTIF Loss Fund

### USTIF Loss Fund Experience at 6/30/2013 Fee Revenue Summary

		Capacity Fee Revenue		Throughput Fee Revenue		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Calendar Year	Capacity Fee	Prior Rate - Average	Capacity Fee @ Current Rate	Gallon Fee	Prior Rate - Average	Throughput Fee @ Current Rate
1997	\$13,469,895	\$0.1500	\$7,408,442	\$45,633,775	\$0.010	\$50,197,152
1998	\$12,596,369	\$0.1000	\$10,392,004	\$23,955,393	\$0.005	\$52,701,864
1999	\$2,091,930	\$0.0200	\$8,629,211	\$7,133,748	\$0.001	\$78,471,230
2000	\$1,247,231	\$0.0100	\$10,289,656	\$2,716,302	\$0.001	\$59,758,652
2001	\$1,076,555	\$0.0100	\$8,881,578	\$2,511,814	\$0.001	\$55,259,906
2002	\$2,289,895	\$0.0171	\$11,066,792	\$4,113,787	\$0.001	\$51,821,593
2003	\$5,178,503	\$0.0750	\$5,696,353	\$45,014,126	\$0.010	\$49,515,539
2004	\$8,492,561	\$0.0825	\$8,492,561	\$56,217,277	\$0.011	\$56,217,277
2005	\$6,389,773	\$0.0825	\$6,389,773	\$54,440,651	\$0.011	\$54,440,651
2006	\$5,944,699	\$0.0825	\$5,944,699	\$54,683,549	\$0.011	\$54,683,549
2007	\$6,178,435	\$0.0825	\$6,178,435	\$56,156,427	\$0.011	\$56,156,427
2008	\$6,367,001	\$0.0825	\$6,367,001	\$52,606,701	\$0.011	\$52,606,701
2009	\$6,125,056	\$0.0825	\$6,125,056	\$52,578,489	\$0.011	\$52,578,489
2010	\$7,090,131	\$0.0825	\$7,090,131	\$54,242,194	\$0.011	\$54,242,194
2011	\$5,585,096	\$0.0825	\$5,585,096	\$53,211,533	\$0.011	\$53,211,533
2012	\$7,356,000	\$0.0825	\$7,356,000	\$54,341,839	\$0.011	\$54,341,839
2013	\$2,326,375	\$0.0825	\$2,326,375	\$26,513,763	\$0.011	\$26,513,763
Total	\$99,805,505		\$124,219,165	\$646,071,368		\$912,718,359
Control	\$99,805,505		\$124,219,165	\$646,071,368		\$912,718,359

Selected for 2013/2014 Under Current Fee Structure

\$6,300,000

54,300,000

- (2) & (5) Provided by USTIF.  
 (3) & (6) Exposure weighted average of monthly rates.  
 (4) = (2) / (3) \* 0.0825  
 (7) = (5) / (6) \* 0.011  
 (2) - (7) Values for 2013 represent the six month period 1/1 - 6/30.





**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Projected Loss & ALAE Payments for Unpaid Losses as of 6/30/2013**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Report Year Beginning 1/1	Ultimate Losses & ALAE <sup>1</sup>	Paid Loss & ALAE as of 6/30/13 <sup>2</sup>	Estimated Unpaid as of 6/30/13	Development Age as of 6/30/13	Payment Year Beginning <sup>3</sup>									
					07/01/13	07/01/14	07/01/15	07/01/16	07/01/17	07/01/18	07/01/19	07/01/20	07/01/21	07/01/22
1994	18,450,000	16,960,856	1,489,144	234	372,286	372,286	372,286	372,286	-	-	-	-	-	-
1995	51,578,019	45,385,634	6,192,385	222	1,238,477	1,238,477	1,238,477	1,238,477	1,238,477	-	-	-	-	-
1996	65,963,517	56,070,870	9,892,647	210	1,930,189	1,592,492	1,592,492	1,592,492	1,592,492	1,592,492	-	-	-	-
1997	81,986,640	70,964,001	11,022,639	198	1,094,320	1,937,149	1,598,234	1,598,234	1,598,234	1,598,234	1,598,234	-	-	-
1998	116,859,688	99,267,204	17,592,484	186	1,762,772	1,571,563	2,781,958	2,295,238	2,295,238	2,295,238	2,295,238	2,295,238	-	-
1999	139,257,414	114,222,172	25,035,242	174	2,897,564	2,218,202	1,977,593	3,500,705	2,888,236	2,888,236	2,888,236	2,888,236	2,888,236	-
2000	84,670,010	67,561,969	17,108,041	162	804,828	1,886,924	1,444,517	1,287,829	2,279,696	1,880,850	1,880,850	1,880,850	1,880,850	1,880,850
2001	98,591,921	75,362,419	23,229,502	150	3,122,521	945,909	2,217,691	1,697,732	1,513,578	2,679,313	2,210,552	2,210,552	2,210,552	2,210,552
2002	81,073,964	59,247,608	21,826,356	138	2,405,582	2,610,550	790,817	1,854,077	1,419,370	1,265,411	2,240,011	1,848,108	1,848,108	1,848,108
2003	52,600,000	36,433,179	16,166,821	126	1,971,890	1,564,488	1,697,790	514,314	1,205,812	923,098	822,969	1,456,807	1,201,930	1,201,930
2004	73,840,937	48,387,478	25,453,459	114	3,767,182	2,645,105	2,098,614	2,277,427	689,904	1,617,485	1,238,250	1,103,936	1,954,171	1,612,277
2005	54,571,873	34,044,114	20,527,759	102	1,923,944	2,753,416	1,933,295	1,533,867	1,664,561	504,248	1,182,212	905,031	806,862	1,428,294
2006	42,447,334	24,117,224	18,330,110	90	2,049,690	1,525,866	2,183,714	1,533,283	1,216,499	1,320,151	399,915	937,604	717,773	639,916
2007	49,037,579	25,579,250	23,458,329	78	2,907,472	2,298,016	1,710,730	2,448,278	1,719,044	1,363,882	1,480,091	448,366	1,051,197	804,734
2008	47,000,000	21,278,261	25,721,739	66	2,862,295	2,833,245	2,239,349	1,667,055	2,385,774	1,675,158	1,329,062	1,442,305	436,919	1,024,361
2009	46,000,000	16,792,828	29,207,172	54	3,603,674	2,849,137	2,820,221	2,229,055	1,659,392	2,374,807	1,667,457	1,322,953	1,435,675	434,911
2010	43,000,000	13,085,279	29,914,721	42	3,400,180	3,271,448	2,586,473	2,560,223	2,023,556	1,506,411	2,155,872	1,513,733	1,200,989	1,303,319
2011	49,400,000	8,574,608	40,825,392	30	4,764,797	4,098,735	3,943,556	3,117,854	3,086,212	2,439,289	1,815,898	2,598,788	1,824,724	1,447,727
2012	49,004,147	2,846,016	46,158,131	18	6,408,188	4,639,280	3,990,764	3,839,672	3,035,722	3,004,913	2,375,032	1,768,063	2,530,329	1,776,656
1/1/13-6/30/13	25,508,814	74,933	25,433,881	6	2,117,978	3,236,974	2,343,444	2,015,859	1,939,537	1,533,437	1,517,875	1,199,702	893,103	1,276,148
<b>Total:</b>	<b>1,270,841,858</b>	<b>836,255,903</b>	<b>434,585,955</b>		<b>51,405,829</b>	<b>46,089,265</b>	<b>41,562,014</b>	<b>39,173,955</b>	<b>35,451,334</b>	<b>32,462,650</b>	<b>29,097,752</b>	<b>25,820,270</b>	<b>22,881,418</b>	<b>18,891,783</b>

Report Year Beginning 1/1	Ultimate Losses & ALAE <sup>1</sup>	Paid Loss & ALAE as of 6/30/13 <sup>2</sup>	Estimated Unpaid as of 6/30/13	Development Age as of 6/30/13	Payment Year Beginning (Continued) <sup>3</sup>									
					07/01/23	07/01/24	07/01/25	07/01/26	07/01/27	07/01/28	07/01/29	07/01/30	07/01/31	07/01/32
1994	18,450,000	16,960,856	1,489,144	234	-	-	-	-	-	-	-	-	-	-
1995	51,578,019	45,385,634	6,192,385	222	-	-	-	-	-	-	-	-	-	-
1996	65,963,517	56,070,870	9,892,647	210	-	-	-	-	-	-	-	-	-	-
1997	81,986,640	70,964,001	11,022,639	198	-	-	-	-	-	-	-	-	-	-
1998	116,859,688	99,267,204	17,592,484	186	-	-	-	-	-	-	-	-	-	-
1999	139,257,414	114,222,172	25,035,242	174	-	-	-	-	-	-	-	-	-	-
2000	84,670,010	67,561,969	17,108,041	162	-	-	-	-	-	-	-	-	-	-
2001	98,591,921	75,362,419	23,229,502	150	2,210,552	-	-	-	-	-	-	-	-	-
2002	81,073,964	59,247,608	21,826,356	138	1,848,108	1,848,108	-	-	-	-	-	-	-	-
2003	52,600,000	36,433,179	16,166,821	126	1,201,930	1,201,930	1,201,930	-	-	-	-	-	-	-
2004	73,840,937	48,387,478	25,453,459	114	1,612,277	1,612,277	1,612,277	1,612,277	-	-	-	-	-	-
2005	54,571,873	34,044,114	20,527,759	102	1,178,406	1,178,406	1,178,406	1,178,406	1,178,406	-	-	-	-	-
2006	42,447,334	24,117,224	18,330,110	90	1,132,770	934,585	934,585	934,585	934,585	934,585	-	-	-	-
2007	49,037,579	25,579,250	23,458,329	78	717,444	1,270,009	1,047,813	1,047,813	1,047,813	1,047,813	1,047,813	-	-	-
2008	47,000,000	21,278,261	25,721,739	66	784,189	699,128	1,237,586	1,021,063	1,021,063	1,021,063	1,021,063	1,021,063	-	-
2009	46,000,000	16,792,828	29,207,172	54	1,019,652	780,584	695,914	1,231,897	1,016,369	1,016,369	1,016,369	1,016,369	1,016,369	-
2010	43,000,000	13,085,279	29,914,721	42	394,816	925,649	708,622	631,757	1,118,327	922,669	922,669	922,669	922,669	922,669
2011	49,400,000	8,574,608	40,825,392	30	1,571,081	475,930	1,115,821	854,206	761,549	1,348,083	1,112,228	1,112,228	1,112,228	1,112,228
2012	49,004,147	2,846,016	46,158,131	18	1,409,591	1,529,695	463,392	1,086,427	831,704	741,488	1,312,571	1,082,929	1,082,929	1,082,929
1/1/13-6/30/13	25,508,814	74,933	25,433,881	6	897,444	712,028	772,696	234,074	548,788	420,119	374,549	663,020	547,021	547,021
<b>Total:</b>	<b>1,270,841,858</b>	<b>836,255,903</b>	<b>434,585,955</b>	<b>Total:</b>	<b>15,978,260</b>	<b>13,168,329</b>	<b>10,969,043</b>	<b>9,832,504</b>	<b>8,458,604</b>	<b>7,452,190</b>	<b>6,807,262</b>	<b>5,818,279</b>	<b>4,681,217</b>	<b>3,664,848</b>

Check Totals	Unpaid at 6/30/2013	Paid 7/1/13 - 7/31/13	Unpaid at 7/1/13
Values per Payment Projections	434,585,955	429,666,804	4,919,150
		Control (Per Pro Forma 10)	4,919,150

<sup>1</sup> From Pro Forma 12 with 2013 pro-rated for partial period.

<sup>2</sup> From Pro Forma 13.

<sup>3</sup> Per Pro Forma 5 applied to (4).



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Projected Loss & ALAE Payments for Report Years 7/01/13-14 and Subsequent

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Report Year Beginning 7/1	Ultimate Losses & ALAE <sup>1</sup>	Payment Year Beginning <sup>2</sup>									
		07/01/13	07/01/14	07/01/15	07/01/16	07/01/17	07/01/18	07/01/19	07/01/20	07/01/21	07/01/22
2013	53,088,167	2,379,503	5,570,126	5,804,653	4,534,470	4,114,333	3,612,527	3,173,921	2,826,775	2,176,899	2,258,497
2014	54,745,511	-	2,453,788	5,744,018	5,985,866	4,676,030	4,242,777	3,725,305	3,273,006	2,915,023	2,244,859
2015	56,455,163	-	-	2,530,417	5,923,399	6,172,800	4,822,058	4,375,275	3,841,643	3,375,219	3,006,057
2016	58,218,795	-	-	-	2,609,466	6,108,443	6,365,635	4,972,697	4,511,957	3,961,654	3,480,660
2017	60,038,136	-	-	-	-	2,691,012	6,299,332	6,564,561	5,128,094	4,652,956	4,085,456
2018	61,914,968	-	-	-	-	-	2,775,135	6,496,254	6,769,774	5,288,402	4,798,410
2019	63,851,133	-	-	-	-	-	-	2,861,917	6,699,400	6,981,474	5,453,777
2020	65,848,531	-	-	-	-	-	-	-	2,951,444	6,908,971	7,199,869
2021	67,909,125	-	-	-	-	-	-	-	-	3,043,804	7,125,174
2022	70,034,944	-	-	-	-	-	-	-	-	-	3,139,086
2023	72,228,078	-	-	-	-	-	-	-	-	-	-
2024	74,490,690	-	-	-	-	-	-	-	-	-	-
2025	76,825,011	-	-	-	-	-	-	-	-	-	-
2026	79,233,345	-	-	-	-	-	-	-	-	-	-
2027	81,718,073	-	-	-	-	-	-	-	-	-	-
2028	84,281,652	-	-	-	-	-	-	-	-	-	-
2029	86,926,620	-	-	-	-	-	-	-	-	-	-
2030	89,655,598	-	-	-	-	-	-	-	-	-	-
2031	92,471,292	-	-	-	-	-	-	-	-	-	-
2032	95,376,498	-	-	-	-	-	-	-	-	-	-
<b>Total:</b>		2,379,503	8,023,914	14,079,088	19,053,201	23,762,618	28,117,464	32,169,930	36,002,093	39,304,402	42,791,845

Report Year Beginning 7/1	Ultimate Losses & ALAE <sup>1</sup>	Payment Year Beginning (Continued) <sup>2</sup>									
		07/01/23	07/01/24	07/01/25	07/01/26	07/01/27	07/01/28	07/01/29	07/01/30	07/01/31	07/01/32
2013	53,088,167	2,263,012	1,674,144	1,544,384	1,047,225	814,319	1,007,840	826,600	1,079,261	1,258,664	1,138,004
2014	54,745,511	2,329,004	2,333,660	1,726,409	1,592,597	1,079,918	839,741	1,039,304	852,405	1,112,954	1,297,958
2015	56,455,163	2,314,964	2,401,737	2,406,538	1,780,323	1,642,333	1,113,642	865,965	1,071,760	879,025	1,147,711
2016	58,218,795	3,099,965	2,387,282	2,476,766	2,481,718	1,835,940	1,693,639	1,148,432	893,018	1,105,241	906,485
2017	60,038,136	3,589,430	3,196,839	2,461,885	2,554,165	2,559,271	1,893,313	1,746,565	1,184,321	920,925	1,139,780
2018	61,914,968	4,213,170	3,701,638	3,296,774	2,538,845	2,634,010	2,639,276	1,952,499	1,801,164	1,221,343	949,713
2019	63,851,133	4,948,463	4,344,922	3,817,394	3,399,869	2,618,238	2,716,379	2,721,810	2,013,556	1,857,488	1,259,536
2020	65,848,531	5,624,383	5,103,261	4,480,840	3,936,810	3,506,224	2,700,142	2,801,353	2,806,954	2,076,545	1,915,595
2021	67,909,125	7,425,174	5,800,386	5,262,957	4,621,059	4,060,004	3,615,944	2,784,638	2,889,016	2,894,791	2,141,526
2022	70,034,944	7,348,219	7,657,611	5,981,961	5,427,708	4,765,716	4,187,098	3,729,137	2,871,808	2,979,453	2,985,410
2023	72,228,078	3,237,386	7,578,327	7,897,408	6,169,285	5,597,676	4,914,953	4,318,216	3,845,914	2,961,738	3,072,754
2024	74,490,690	-	3,338,801	7,815,726	8,144,802	6,362,544	5,773,028	5,068,919	4,453,488	3,966,391	3,054,517
2025	76,825,011	-	-	3,443,429	8,060,648	8,400,036	6,561,927	5,953,938	5,227,764	4,593,048	4,090,686
2026	79,233,345	-	-	-	3,551,374	8,313,335	8,663,363	6,767,632	6,140,584	5,391,646	4,737,032
2027	81,718,073	-	-	-	-	3,662,744	8,574,039	8,935,043	6,979,863	6,333,151	5,560,726
2028	84,281,652	-	-	-	-	-	3,777,648	8,843,015	9,215,344	7,198,828	6,531,828
2029	86,926,620	-	-	-	-	-	-	3,896,200	9,120,531	9,504,544	7,424,745
2030	89,655,598	-	-	-	-	-	-	-	4,018,518	9,406,861	9,802,930
2031	92,471,292	-	-	-	-	-	-	-	-	4,144,722	9,702,290
2032	95,376,498	-	-	-	-	-	-	-	-	-	4,274,938
<b>Total:</b>		46,393,171	49,518,609	52,612,470	55,306,427	57,852,307	60,671,972	63,399,265	66,465,267	69,807,358	73,134,164

Check Totals	Paid Thru 7/01/2033	Unpaid at 7/01/2033	Total
Values per Payment Projections	840,845,067	604,466,261	1,445,311,328
Control (Sum of Ultimate Losses & ALAE)			1,445,311,328

<sup>1</sup> Based on Pro Forma 7, Columns (6) and (8).

<sup>2</sup> Per Pro Forma 6 applied to (2).



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Projected Loss & ALAE Payout Percentages  
For Unpaid Losses as of 6/30/2013

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Report Year Development Age	Payment Year Beginning									
	7/1/13	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19	7/1/20	7/1/21	7/1/22
270	1.000	-	-	-	-	-	-	-	-	-
258	0.500	0.500	-	-	-	-	-	-	-	-
246	0.333	0.333	0.333	-	-	-	-	-	-	-
234	0.250	0.250	0.250	0.250	-	-	-	-	-	-
222	0.200	0.200	0.200	0.200	0.200	-	-	-	-	-
210	0.195	0.161	0.161	0.161	0.161	0.161	-	-	-	-
198	0.099	0.176	0.145	0.145	0.145	0.145	0.145	-	-	-
186	0.100	0.089	0.158	0.130	0.130	0.130	0.130	0.130	-	-
174	0.116	0.089	0.079	0.140	0.115	0.115	0.115	0.115	0.115	-
162	0.047	0.110	0.084	0.075	0.133	0.110	0.110	0.110	0.110	0.110
150	0.134	0.041	0.095	0.073	0.065	0.115	0.095	0.095	0.095	0.095
138	0.110	0.120	0.036	0.085	0.065	0.058	0.103	0.085	0.085	0.085
126	0.122	0.097	0.105	0.032	0.075	0.057	0.051	0.090	0.074	0.074
114	0.148	0.104	0.082	0.089	0.027	0.064	0.049	0.043	0.077	0.063
102	0.094	0.134	0.094	0.075	0.081	0.025	0.058	0.044	0.039	0.070
90	0.112	0.083	0.119	0.084	0.066	0.072	0.022	0.051	0.039	0.035
78	0.124	0.098	0.073	0.104	0.073	0.058	0.063	0.019	0.045	0.034
66	0.111	0.110	0.087	0.065	0.093	0.065	0.052	0.056	0.017	0.040
54	0.123	0.098	0.097	0.076	0.057	0.081	0.057	0.045	0.049	0.015
42	0.114	0.109	0.086	0.086	0.068	0.050	0.072	0.051	0.040	0.044
30	0.117	0.100	0.097	0.076	0.076	0.060	0.044	0.064	0.045	0.035
18	0.139	0.101	0.086	0.083	0.066	0.065	0.051	0.038	0.055	0.038
6	0.083	0.127	0.092	0.079	0.076	0.060	0.060	0.047	0.035	0.050

Report Year Development Age	Payment Year Beginning (Continued)									
	7/1/23	7/1/24	7/1/25	7/1/26	7/1/27	7/1/28	7/1/29	7/1/30	7/1/31	7/1/32
270	-	-	-	-	-	-	-	-	-	-
258	-	-	-	-	-	-	-	-	-	-
246	-	-	-	-	-	-	-	-	-	-
234	-	-	-	-	-	-	-	-	-	-
222	-	-	-	-	-	-	-	-	-	-
210	-	-	-	-	-	-	-	-	-	-
198	-	-	-	-	-	-	-	-	-	-
186	-	-	-	-	-	-	-	-	-	-
174	-	-	-	-	-	-	-	-	-	-
162	-	-	-	-	-	-	-	-	-	-
150	0.095	-	-	-	-	-	-	-	-	-
138	0.085	0.085	-	-	-	-	-	-	-	-
126	0.074	0.074	0.074	-	-	-	-	-	-	-
114	0.063	0.063	0.063	0.063	-	-	-	-	-	-
102	0.057	0.057	0.057	0.057	0.057	-	-	-	-	-
90	0.062	0.051	0.051	0.051	0.051	0.051	-	-	-	-
78	0.031	0.054	0.045	0.045	0.045	0.045	0.045	-	-	-
66	0.030	0.027	0.048	0.040	0.040	0.040	0.040	0.040	-	-
54	0.035	0.027	0.024	0.042	0.035	0.035	0.035	0.035	0.035	-
42	0.013	0.031	0.024	0.021	0.037	0.031	0.031	0.031	0.031	0.031
30	0.038	0.012	0.027	0.021	0.019	0.033	0.027	0.027	0.027	0.027
18	0.031	0.033	0.010	0.024	0.018	0.016	0.028	0.023	0.023	0.023
6	0.035	0.028	0.030	0.009	0.022	0.017	0.015	0.026	0.022	0.022

Note: Percentages derived from payment pattern in Pro Forma 10.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Projected Loss & ALAE Payout Percentages  
Incremental Payout Percentages for Report Years 2013/14 and Subsequent

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Payment Year Beginning										
Report Year Beginning 7/1:	7/1/13	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19	7/1/20	7/1/21	7/1/22
2013	0.045	0.105	0.109	0.085	0.078	0.068	0.060	0.053	0.041	0.043
2014	-	0.045	0.105	0.109	0.085	0.078	0.068	0.060	0.053	0.041
2015	-	-	0.045	0.105	0.109	0.085	0.078	0.068	0.060	0.053
2016	-	-	-	0.045	0.105	0.109	0.085	0.078	0.068	0.060
2017	-	-	-	-	0.045	0.105	0.109	0.085	0.078	0.068
2018	-	-	-	-	-	0.045	0.105	0.109	0.085	0.078
2019	-	-	-	-	-	-	0.045	0.105	0.109	0.085
2020	-	-	-	-	-	-	-	0.045	0.105	0.109
2021	-	-	-	-	-	-	-	-	0.045	0.105
2022	-	-	-	-	-	-	-	-	-	0.045
2023	-	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-	-

Payment Year Beginning (Continued)										
Report Year Beginning 7/1:	7/1/23	7/1/24	7/1/25	7/1/26	7/1/27	7/1/28	7/1/29	7/1/30	7/1/31	7/1/32
2013	0.043	0.032	0.029	0.020	0.015	0.019	0.016	0.020	0.024	0.021
2014	0.043	0.043	0.032	0.029	0.020	0.015	0.019	0.016	0.020	0.024
2015	0.041	0.043	0.043	0.032	0.029	0.020	0.015	0.019	0.016	0.020
2016	0.053	0.041	0.043	0.043	0.032	0.029	0.020	0.015	0.019	0.016
2017	0.060	0.053	0.041	0.043	0.043	0.032	0.029	0.020	0.015	0.019
2018	0.068	0.060	0.053	0.041	0.043	0.043	0.032	0.029	0.020	0.015
2019	0.078	0.068	0.060	0.053	0.041	0.043	0.043	0.032	0.029	0.020
2020	0.085	0.078	0.068	0.060	0.053	0.041	0.043	0.043	0.032	0.029
2021	0.109	0.085	0.078	0.068	0.060	0.053	0.041	0.043	0.043	0.032
2022	0.105	0.109	0.085	0.078	0.068	0.060	0.053	0.041	0.043	0.043
2023	0.045	0.105	0.109	0.085	0.078	0.068	0.060	0.053	0.041	0.043
2024	-	0.045	0.105	0.109	0.085	0.078	0.068	0.060	0.053	0.041
2025	-	-	0.045	0.105	0.109	0.085	0.078	0.068	0.060	0.053
2026	-	-	-	0.045	0.105	0.109	0.085	0.078	0.068	0.060
2027	-	-	-	-	0.045	0.105	0.109	0.085	0.078	0.068
2028	-	-	-	-	-	0.045	0.105	0.109	0.085	0.078
2029	-	-	-	-	-	-	0.045	0.105	0.109	0.085
2030	-	-	-	-	-	-	-	0.045	0.105	0.109
2031	-	-	-	-	-	-	-	-	0.045	0.105
2032	-	-	-	-	-	-	-	-	-	0.045

Note: Based on 12, 24, 36... payment pattern in Pro Forma 10.



# **Pennsylvania Insurance Department / Bureau of Special Funds** **USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013**  
**Projected Ultimate Loss & ALAE for July 1, 2013 Through June 30, 2033**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Policy Period	Projected Number of Tanks	Estimated Claim Frequency	Estimated Ultimate Claim Counts	Estimated Ultimate Loss Severity	Estimated Ultimate Loss	Estimated Ultimate ALAE Severity	Estimated Ultimate ALAE
7/1/13-14	24,282	0.0073	177	263,000	46,618,324	36,500	6,469,843
7/1/14-15	24,282	0.0073	177	270,890	48,016,874	37,960	6,728,637
7/1/15-16	24,282	0.0073	177	279,017	49,457,380	39,478	6,997,783
7/1/16-17	24,282	0.0073	177	287,387	50,941,101	41,058	7,277,694
7/1/17-18	24,282	0.0073	177	296,009	52,469,334	42,700	7,568,802
7/1/18-19	24,282	0.0073	177	304,889	54,043,414	44,408	7,871,554
7/1/19-20	24,282	0.0073	177	314,036	55,664,717	46,184	8,186,416
7/1/20-21	24,282	0.0073	177	323,457	57,334,658	48,032	8,513,873
7/1/21-22	24,282	0.0073	177	333,161	59,054,698	49,953	8,854,427
7/1/22-23	24,282	0.0073	177	343,155	60,826,339	51,951	9,208,605
7/1/23-24	24,282	0.0073	177	353,450	62,651,129	54,029	9,576,949
7/1/24-25	24,282	0.0073	177	364,054	64,530,663	56,190	9,960,027
7/1/25-26	24,282	0.0073	177	374,975	66,466,583	58,438	10,358,428
7/1/26-27	24,282	0.0073	177	386,224	68,460,580	60,775	10,772,765
7/1/27-28	24,282	0.0073	177	397,811	70,514,398	63,206	11,203,675
7/1/28-29	24,282	0.0073	177	409,745	72,629,830	65,734	11,651,823
7/1/29-30	24,282	0.0073	177	422,038	74,808,725	68,364	12,117,895
7/1/30-31	24,282	0.0073	177	434,699	77,052,986	71,098	12,602,611
7/1/31-32	24,282	0.0073	177	447,740	79,364,576	73,942	13,106,716
7/1/32-33	24,282	0.0073	177	461,172	81,745,513	76,900	13,630,984

(2) Projected using number of tanks from Pro Forma 9 with a 0% annual growth rate.

(3) Selected 2013/14 claim frequency from Pro Forma 8 trended to the midpoint of each policy period using a 0% trend rate from Pro Forma 9.

(4) = (2) x (3)

(5) Selected 2013/14 loss severity from Pro Forma 8 trended to the midpoint of each policy period using a 3.0% trend rate from Pro Forma 9.

(6) = (4) x (5)

(7) Selected 2013/14 ALAE severity from Pro Forma 8 trended to the midpoint of each policy period using a 4.0% trend rate from Pro Forma 9.

(8) = (4) x (7)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
1/1/2014 Frequency & Severity Assumptions

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Policy Period	Ultimate Claim Frequency	Claim Frequency Trend Factor	1/1/2014 Trended Ult Claim Freq	Ultimate Loss Severity	Loss Severity Trend Factor	1/1/2014 Trended Ult Loss Severity	Ultimate ALAE Severity	ALAE Severity Trend Factor	1/1/2014 Trended Ult ALAE Severity
1994	-	1.0000	-	94,706	1.7796	168,540	13,824	2.1486	29,701
1995	0.0086	1.0000	0.0086	128,489	1.7278	222,001	4,102	2.0659	8,475
1996	0.0083	1.0000	0.0083	166,190	1.6775	278,776	6,039	1.9865	11,996
1997	0.0101	1.0000	0.0101	180,919	1.6286	294,644	8,427	1.9101	16,096
1998	0.0165	1.0000	0.0165	207,674	1.5812	328,367	13,233	1.8366	24,303
1999	0.0180	1.0000	0.0180	228,846	1.5351	351,303	13,763	1.7660	24,305
2000	0.0118	1.0000	0.0118	223,511	1.4904	333,121	14,326	1.6980	24,326
2001	0.0113	1.0000	0.0113	280,174	1.4470	405,409	15,898	1.6327	25,957
2002	0.0119	1.0000	0.0119	219,410	1.4048	308,236	12,894	1.5699	20,243
2003	0.0085	1.0000	0.0085	203,320	1.3639	277,313	14,938	1.5096	22,549
2004	0.0117	1.0000	0.0117	213,793	1.3242	283,105	17,683	1.4515	25,667
2005	0.0088	1.0000	0.0088	211,427	1.2856	271,817	19,810	1.3957	27,648
2006	0.0079	1.0000	0.0079	188,506	1.2482	235,290	16,554	1.3420	22,215
2007	0.0071	1.0000	0.0071	244,565	1.2118	296,372	21,943	1.2904	28,315
2008	0.0070	1.0000	0.0070	237,288	1.1765	279,178	28,249	1.2407	35,049
2009	0.0070	1.0000	0.0070	229,885	1.1423	262,590	34,483	1.1930	41,139
2010	0.0063	1.0000	0.0063	243,590	1.1090	270,140	32,051	1.1471	36,767
2011	0.0077	1.0000	0.0077	232,086	1.0767	249,886	32,086	1.1030	35,391
2012	0.0073	1.0000	0.0073	241,573	1.0453	252,525	33,731	1.0606	35,775
2013	0.0075	1.0000	0.0075	245,670	1.0149	249,328	34,646	1.0198	35,332
Average Last 3			0.0075			250,580			35,500
Average: 2010-2012			0.0071			257,517			35,978
Average: 2008-2012			0.0070			262,864			36,824
Average: 2007-2011			0.0070			271,633			35,332
Selected (Policy Year 2013/14)			0.0073			263,000			36,500

- (2) From Pro Forma 9.
- (3) Trended to January 1, 2014 using a 0% trend factor based on Pro Forma 9.
- (4) = (2) x (3)
- (5) From Pro Forma 9.
- (6) Trended to January 1, 2014 using a 3.0% trend factor based on Pro Forma 9.
- (7) = (5) x (6)
- (8) From Pro Forma 9.
- (9) Trended to January 1, 2014 using a 4.0% trend factor based on Pro Forma 9.
- (10) = (8) x (9)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Summary Statistics - Frequency and Severity Trend Selections

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Policy Period	Number of Tanks	Ultimate Counts	Ultimate Claim Frequency	Ultimate Claim Frequency % Change	Ultimate Losses	Ultimate Loss Severity	Ultimate Loss Severity % Change	Ultimate ALAE	Ultimate ALAE Severity	Ultimate ALAE Severity % Change
1994	-	170	-	-	16,100,000	94,706	-	2,350,000	13,824	-
1995	45,452	389	0.0086	-	49,982,266	128,489	35.7%	1,595,753	4,102	-70.3%
1996	46,067	383	0.0083	-2.9%	63,650,636	166,190	29.3%	2,312,881	6,039	47.2%
1997	42,738	433	0.0101	21.9%	78,337,891	180,919	8.9%	3,648,748	8,427	39.5%
1998	32,104	529	0.0165	62.6%	109,859,688	207,674	14.8%	7,000,000	13,233	57.0%
1999	31,880	574	0.0180	9.3%	131,357,414	228,846	10.2%	7,900,000	13,763	4.0%
2000	30,099	356	0.0118	-34.3%	79,570,010	223,511	-2.3%	5,100,000	14,326	4.1%
2001	29,539	333	0.0113	-4.7%	93,297,936	280,174	25.4%	5,293,985	15,898	11.0%
2002	29,215	349	0.0119	6.0%	76,573,964	219,410	-21.7%	4,500,000	12,894	-18.9%
2003	28,311	241	0.0085	-28.7%	49,000,000	203,320	-7.3%	3,600,000	14,938	15.9%
2004	27,310	319	0.0117	37.2%	68,200,000	213,793	5.2%	5,640,937	17,683	18.4%
2005	26,890	236	0.0088	-24.9%	49,896,809	211,427	-1.1%	4,675,064	19,810	12.0%
2006	26,305	207	0.0079	-10.3%	39,020,687	188,506	-10.8%	3,426,647	16,554	-16.4%
2007	25,760	184	0.0071	-9.2%	45,000,000	244,565	29.7%	4,037,579	21,943	32.6%
2008	25,408	177	0.0070	-2.5%	42,000,000	237,288	-3.0%	5,000,000	28,249	28.7%
2009	24,993	174	0.0070	-0.1%	40,000,000	229,885	-3.1%	6,000,000	34,483	22.1%
2010	24,745	156	0.0063	-9.4%	38,000,000	243,590	6.0%	5,000,000	32,051	-7.1%
2011	24,360	187	0.0077	21.8%	43,400,000	232,086	-4.7%	6,000,000	32,086	0.1%
2012	24,358	178	0.0073	-4.8%	43,000,000	241,573	4.1%	6,004,147	33,731	5.1%
2013	24,282	182	0.0075	2.6%	44,712,000	245,670	1.7%	6,305,628	34,646	2.7%
Indicated Trend - Latest 10 years (Excl. 2013)			-3.78%				2.08%			10.42%
Indicated Trend - 2008 through 2012			1.95%				0.45%			2.87%
Indicated Trend - Latest 3 years			-1.19%				2.89%			3.91%
Selected					0.00%		3.00%			4.00%

- (2) Provided by USTIF.  
 (2) Estimates for 2012 and 2013  
 (3) From Exhibit 7.  
 (4) = (3) / (2)  
 (5) Period-over-Period change in (4).  
 (6) From Exhibit 2.  
 (7) = (6) / (3)  
 (8) Period-over-Period change in (7).  
 (9) From Exhibit 8.  
 (10) = (9) / (3)  
 (11) Period-over-Period change in (10).



**Pennsylvania Insurance Department / Bureau of Special Funds**  
**USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Estimated Payment Pattern

(1)	(2)	(3)	(4)	(5)	(6)
Maturity (Months)	Incremental Percentage Paid	Cumulative Percentage Paid	Maturity (Months)	Implied Incremental Percentage Paid	Interpolated Cumulative Percentage Paid
6	0.003	0.003	12	0.045	0.045
18	0.083	0.086	24	0.105	0.150
30	0.127	0.213	36	0.109	0.259
42	0.092	0.305	48	0.085	0.344
54	0.079	0.384	60	0.078	0.422
66	0.076	0.460	72	0.068	0.490
78	0.060	0.520	84	0.060	0.550
90	0.059	0.580	96	0.053	0.603
102	0.047	0.627	108	0.041	0.644
114	0.035	0.662	120	0.043	0.687
126	0.050	0.712	132	0.043	0.729
138	0.035	0.747	144	0.032	0.761
150	0.028	0.775	156	0.029	0.790
162	0.030	0.805	168	0.020	0.810
174	0.009	0.814	180	0.015	0.825
186	0.022	0.836	192	0.019	0.844
198	0.016	0.852	204	0.016	0.859
210	0.015	0.867	216	0.020	0.880
222	0.026	0.893	228	0.024	0.904
234	0.021	0.914	240	0.021	0.925
246	0.021	0.936	252	0.021	0.946
258	0.021	0.957	264	0.021	0.968
270	0.021	0.979	276	0.021	0.989
282	0.021	1.000	288	0.011	1.000

- (2) Based on (3).  
(3) From Pro Forma 11.  
(5) Based on (6).  
(6) Interpolated based on (3).





**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Estimated Payment Pattern**

Policy Period	Paid Loss & ALAE Combined <sup>1</sup>																		Estimated Ultimate Loss & ALAE <sup>2</sup>
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222
1994	26,549	1,112,976	2,719,186	4,236,228	5,285,263	5,939,452	7,482,553	8,564,703	9,477,406	10,350,474	11,252,051	12,195,614	13,032,291	13,588,994	15,314,938	15,709,728	16,081,707	16,385,041	16,710,120
1995	80,363	4,087,659	9,026,123	12,185,081	14,744,313	17,944,081	20,821,180	23,888,062	26,748,044	29,137,306	31,472,990	33,896,880	35,887,456	38,745,968	40,517,288	41,928,197	43,374,296	44,481,220	45,385,634
1996	378,046	5,783,162	11,263,295	16,306,452	19,975,004	24,322,249	28,142,300	32,001,522	35,414,898	38,905,007	42,351,042	45,936,538	48,598,758	50,740,689	51,888,245	53,592,372	54,782,889	56,070,870	
1997	815,371	7,875,779	14,758,342	21,017,720	27,565,532	33,565,170	39,449,251	46,062,610	50,123,154	54,060,367	57,548,621	61,182,809	63,893,939	66,393,287	68,349,233	69,868,218	70,964,001		
1998	669,532	12,642,059	22,085,159	30,767,672	40,238,127	49,458,358	57,111,018	64,772,688	72,443,459	78,531,873	84,457,462	88,187,040	91,693,377	95,304,283	96,878,133	99,267,204			
1999	995,206	10,809,677	24,747,463	37,178,409	49,219,242	60,182,300	69,633,767	78,161,811	85,782,496	92,972,886	100,362,130	105,081,248	108,548,127	111,624,317	114,222,172				
2000	1,575,214	8,024,820	18,347,170	25,954,735	33,207,452	40,522,360	47,051,556	52,057,715	55,960,339	59,329,017	62,243,765	64,238,729	66,072,476	67,561,969					
2001	809,903	8,376,286	18,477,080	27,605,858	36,928,114	45,163,118	52,263,847	57,451,754	62,131,654	66,554,758	70,330,364	73,282,030	75,362,419						
2002	228,084	7,089,086	14,710,589	22,931,509	29,928,074	36,856,750	42,864,181	48,271,600	51,714,403	54,530,815	57,201,640	59,247,608							
2003	177,897	4,463,156	10,291,790	16,163,904	20,582,941	24,137,096	27,631,165	30,336,428	32,578,695	34,550,206	36,433,179								
2004	63,928	4,311,757	11,180,929	22,285,037	28,765,844	34,380,616	39,561,793	43,569,545	46,170,063	48,387,478									
2005	130,235	3,786,862	11,254,927	16,559,427	21,328,688	25,240,041	28,461,680	31,679,023	34,044,114										
2006	109,170	3,897,217	8,765,680	12,988,017	16,383,871	19,560,516	21,949,600	24,117,224											
2007	291,760	5,926,828	11,734,761	16,555,350	20,335,786	23,018,153	25,579,250												
2008	484,494	5,679,183	11,264,089	15,406,955	18,425,257	21,278,261													
2009	303,418	5,221,079	10,432,624	13,860,316	16,792,828														
2010	291,417	4,356,980	9,143,406	13,085,279															
2011	176,467	3,575,459	8,574,608																
2012	72,256	2,846,016																	
2013	74,933																		
Policy Period	Paid Loss & ALAE to Ultimate Loss & ALAE <sup>2</sup>																		
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222
1994	0.001	0.060	0.147	0.230	0.286	0.322	0.406	0.464	0.514	0.561	0.610	0.661	0.706	0.737	0.830	0.851	0.872	0.888	0.906
1995	0.002	0.079	0.175	0.236	0.286	0.348	0.404	0.463	0.519	0.565	0.610	0.657	0.696	0.751	0.786	0.813	0.841	0.862	0.880
1996	0.006	0.088	0.171	0.247	0.303	0.369	0.427	0.485	0.537	0.590	0.642	0.696	0.737	0.769	0.787	0.812	0.831	0.850	
1997	0.010	0.096	0.180	0.256	0.336	0.409	0.481	0.562	0.611	0.659	0.702	0.746	0.779	0.810	0.834	0.852	0.866		
1998	0.006	0.108	0.189	0.263	0.344	0.423	0.489	0.554	0.620	0.672	0.723	0.755	0.785	0.816	0.829	0.849			
1999	0.007	0.078	0.178	0.267	0.353	0.432	0.500	0.561	0.616	0.668	0.721	0.755	0.779	0.802	0.820				
2000	0.019	0.095	0.217	0.307	0.392	0.479	0.556	0.615	0.661	0.701	0.735	0.759	0.780	0.798					
2001	0.008	0.085	0.187	0.280	0.375	0.458	0.530	0.583	0.630	0.675	0.713	0.743	0.764						
2002	0.003	0.087	0.181	0.283	0.369	0.455	0.529	0.595	0.638	0.673	0.706	0.731							
2003	0.003	0.085	0.196	0.307	0.391	0.459	0.525	0.577	0.619	0.657	0.693								
2004	0.001	0.058	0.151	0.302	0.390	0.466	0.536	0.590	0.625	0.655									
2005	0.002	0.069	0.206	0.303	0.391	0.463	0.522	0.581	0.624										
2006	0.003	0.092	0.207	0.306	0.386	0.461	0.517	0.568											
2007	0.006	0.121	0.239	0.338	0.415	0.469	0.522												
2008	0.010	0.121	0.240	0.328	0.392	0.453													
2009	0.007	0.114	0.227	0.301	0.365														
2010	0.007	0.101	0.213	0.304															
2011	0.004	0.072	0.174																
2012	0.001	0.058																	
2013	0.001																		
average	0.005	0.088	0.193	0.286	0.361	0.431	0.496	0.554	0.601	0.643	0.685	0.723	0.753	0.783	0.814	0.836	0.852	0.867	0.893
last 4 avg	0.003	0.086	0.213	0.318	0.389	0.461	0.524	0.579	0.627	0.665	0.712	0.747	0.777	0.806	0.817	0.832	0.852		
last 3 avg	0.002	0.077	0.204	0.311	0.391	0.461	0.520	0.580	0.623	0.662	0.704	0.744	0.775	0.805	0.828	0.838	0.846	0.867	
Last 2 avg	0.001	0.065	0.193	0.303	0.379	0.461	0.519	0.574	0.625	0.656	0.699	0.737	0.772	0.800	0.825	0.851	0.848	0.856	0.893
Prior Selected	0.004	0.090	0.213	0.303	0.384	0.448	0.500	0.569	0.613	0.657	0.704	0.740	0.769	0.790	0.807	0.827	0.846	0.880	
Selected	0.003	0.086	0.213	0.305	0.384	0.460	0.520	0.580	0.627	0.662	0.712	0.747	0.775	0.805	0.814	0.836	0.852	0.867	0.893

<sup>1</sup> Based on Exhibit 13 and Exhibit 15.

<sup>2</sup> From Pro Forma 12



# **Pennsylvania Insurance Department / Bureau of Special Funds USTIF Loss Fund**

## **USTIF Loss Fund Experience at 6/30/2013 Summary of Estimated Ultimate Loss & ALAE**

(1)	(2)	(3)	(4)
Policy Period	Estimated Ultimate Loss	Estimated Ultimate ALAE	Estimated Ultimate Loss & ALAE
1994	16,100,000	2,350,000	18,450,000
1995	49,982,266	1,595,753	51,578,019
1996	63,650,636	2,312,881	65,963,517
1997	78,337,891	3,648,748	81,986,640
1998	109,859,688	7,000,000	116,859,688
1999	131,357,414	7,900,000	139,257,414
2000	79,570,010	5,100,000	84,670,010
2001	93,297,936	5,293,985	98,591,921
2002	76,573,964	4,500,000	81,073,964
2003	49,000,000	3,600,000	52,600,000
2004	68,200,000	5,640,937	73,840,937
2005	49,896,809	4,675,064	54,571,873
2006	39,020,687	3,426,647	42,447,334
2007	45,000,000	4,037,579	49,037,579
2008	42,000,000	5,000,000	47,000,000
2009	40,000,000	6,000,000	46,000,000
2010	38,000,000	5,000,000	43,000,000
2011	43,400,000	6,000,000	49,400,000
2012	43,000,000	6,004,147	49,004,147
2013	44,712,000	6,305,628	51,017,628
Total	1,200,959,303	95,391,369	1,296,350,672

(2) From Exhibit 2

(3) From Exhibit 8

(4) = (2) + (3)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Paid Loss & ALAE**

(1)	(2)	(3)	(4)
Policy Period	Paid Loss	Paid ALAE	Paid Loss & ALAE Combined
1994	14,717,050	2,243,806	16,960,856
1995	44,174,078	1,211,556	45,385,634
1996	54,500,935	1,569,935	56,070,870
1997	68,349,730	2,614,271	70,964,001
1998	94,098,293	5,168,911	99,267,204
1999	108,943,899	5,278,273	114,222,172
2000	64,457,740	3,104,229	67,561,969
2001	72,723,966	2,638,453	75,362,419
2002	57,084,147	2,163,461	59,247,608
2003	34,739,575	1,693,604	36,433,179
2004	45,878,641	2,508,837	48,387,478
2005	32,029,453	2,014,661	34,044,114
2006	22,905,540	1,211,684	24,117,224
2007	24,325,300	1,253,950	25,579,250
2008	19,898,848	1,379,413	21,278,261
2009	15,379,563	1,413,265	16,792,828
2010	12,273,389	811,890	13,085,279
2011	7,776,653	797,955	8,574,608
2012	2,506,650	339,366	2,846,016
2013	55,803	19,130	74,933
Total	796,819,253	39,436,650	836,255,903

(2) From Exhibit 25

(3) From Exhibit 25

(4) = (2) + (3)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Estimated Unpaid Loss**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy Period	Estimated Ultimate Loss	Paid Loss	Case Reserve	Case Incurred Loss	Estimated IBNR	Estimated Unpaid Loss
1994	16,100,000	14,717,050	594,711	15,311,761	788,239	1,382,950
1995	49,982,266	44,174,078	3,506,319	47,680,397	2,301,869	5,808,188
1996	63,650,636	54,500,935	5,349,234	59,850,169	3,800,467	9,149,701
1997	78,337,891	68,349,730	3,491,780	71,841,510	6,496,381	9,988,161
1998	109,859,688	94,098,293	5,019,624	99,117,917	10,741,771	15,761,395
1999	131,357,414	108,943,899	7,673,367	116,617,266	14,740,148	22,413,515
2000	79,570,010	64,457,740	4,544,850	69,002,590	10,567,420	15,112,270
2001	93,297,936	72,723,966	7,312,098	80,036,064	13,261,872	20,573,970
2002	76,573,964	57,084,147	7,254,517	64,338,664	12,235,300	19,489,817
2003	49,000,000	34,739,575	5,326,902	40,066,477	8,933,523	14,260,425
2004	68,200,000	45,878,641	8,692,840	54,571,481	13,628,519	22,321,359
2005	49,896,809	32,029,453	6,059,773	38,089,226	11,807,583	17,867,356
2006	39,020,687	22,905,540	5,026,730	27,932,270	11,088,417	16,115,147
2007	45,000,000	24,325,300	4,228,030	28,553,330	16,446,670	20,674,700
2008	42,000,000	19,898,848	5,287,866	25,186,714	16,813,286	22,101,152
2009	40,000,000	15,379,563	6,186,163	21,565,726	18,434,274	24,620,437
2010	38,000,000	12,273,389	8,458,262	20,731,651	17,268,349	25,726,611
2011	43,400,000	7,776,653	11,119,495	18,896,148	24,503,852	35,623,347
2012	43,000,000	2,506,650	12,737,282	15,243,932	27,756,068	40,493,350
1/1/2013-6/30/2013	22,356,000 <sup>1</sup>	55,803	9,469,197	9,525,000	12,831,000	22,300,197
Total	1,178,603,303	796,819,253	127,339,040	924,158,293	254,445,010	381,784,050

(2) From Exhibit 2

(3) From Exhibit 25

(4) From Exhibit 25

(5) = (3) + (4)

(6) = (2) - (5)

(7) = (4) + (6)

<sup>1</sup> 2013 estimate from Exhibit 2 multiplied by 50% to estimate the ultimate loss for 1/1/13-6/30/13.

USTIF Analysis Exhibits\_2013\_v3.xlsm Exhibit 1 (a)

11/20/2013 4:54 PM



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Estimated Unpaid ALAE**

(1)	(2)	(3)	(4)
Policy Period	Estimated Ultimate ALAE	Paid ALAE	Estimated Unpaid ALAE
1994	2,350,000	2,243,806	106,194
1995	1,595,753	1,211,556	384,197
1996	2,312,881	1,569,935	742,946
1997	3,648,748	2,614,271	1,034,477
1998	7,000,000	5,168,911	1,831,089
1999	7,900,000	5,278,273	2,621,727
2000	5,100,000	3,104,229	1,995,771
2001	5,293,985	2,638,453	2,655,532
2002	4,500,000	2,163,461	2,336,539
2003	3,600,000	1,693,604	1,906,396
2004	5,640,937	2,508,837	3,132,100
2005	4,675,064	2,014,661	2,660,403
2006	3,426,647	1,211,684	2,214,963
2007	4,037,579	1,253,950	2,783,629
2008	5,000,000	1,379,413	3,620,587
2009	6,000,000	1,413,265	4,586,735
2010	5,000,000	811,890	4,188,110
2011	6,000,000	797,955	5,202,045
2012	6,004,147	339,366	5,664,781
1/1/2013-6/30/2013	3,152,814 <sup>1</sup>	19,130	3,133,684
Total	92,238,555	39,436,650	52,801,905

(2) From Exhibit 8

(3) From Exhibit 25

(4) = (2) - (3)

<sup>1</sup> 2013 estimate from Exhibit 8 multiplied by 50% to estimate the ultimate ALAE for 1/1/13-6/30/13.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Estimated Ultimate Loss**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ultimate Loss Indications							
Policy Period	Paid Loss	Incurred Loss	Incurred Loss Loss Development Method	Paid Loss Loss Development Method	Incurred Loss Cape Cod Method	Paid Loss Cape Cod Method	Selected Ultimate Loss
1994	14,717,050	15,311,761	16,007,750	15,855,784	16,453,526	16,592,757	16,100,000
1995	44,174,078	47,680,397	50,445,860	48,591,486	51,145,798	49,893,385	49,982,266
1996	54,500,935	59,850,169	64,081,337	61,210,000	64,227,294	61,755,728	63,650,636
1997	68,349,730	71,841,510	77,843,462	78,682,671	77,977,799	78,847,633	78,337,891
1998	94,098,293	99,117,917	108,687,443	111,031,934	108,196,012	109,969,954	109,859,688
1999	108,943,899	116,617,266	129,410,815	132,405,583	128,271,180	130,101,562	131,357,414
2000	64,457,740	69,002,590	77,491,421	80,689,251	77,358,215	80,041,705	79,570,010
2001	72,723,966	80,036,064	91,410,252	94,314,381	89,300,579	90,059,053	93,297,936
2002	57,084,147	64,338,664	74,804,720	76,770,547	76,209,582	79,233,675	76,573,964
2003	34,739,575	40,066,477	47,562,411	48,962,649	47,100,519	48,646,216	49,000,000
2004	45,878,641	54,571,481	66,400,647	68,218,695	65,391,708	67,301,249	68,200,000
2005	32,029,453	38,089,226	47,550,608	50,483,360	47,181,323	50,189,470	49,896,809
2006	22,905,540	27,932,270	35,916,779	38,629,852	36,961,180	41,080,194	39,020,687
2007	24,325,300	28,553,330	38,734,716	45,331,802	38,248,439	43,373,774	45,000,000
2008	19,898,848	25,186,714	36,559,387	42,274,411	36,407,178	41,407,541	42,000,000
2009	15,379,563	21,565,726	32,649,443	38,227,816	33,757,524	39,802,422	40,000,000
2010	12,273,389	20,731,651	32,956,030	38,133,793	32,854,484	37,709,656	38,000,000
2011	7,776,653	18,896,148	33,042,049	35,035,332	35,825,736	43,407,275	43,400,000
2012	2,506,650	15,243,932	27,455,409	25,183,267	32,242,798	42,761,342	43,000,000
2013	55,803	9,525,000	34,310,408	33,637,768	38,742,402	47,286,133	44,712,000
Total	796,819,253	924,158,293	1,123,320,947	1,163,670,380	1,133,853,276	1,199,460,726	1,200,959,303

(2) & (3) From Exhibit 25

(4) From Exhibit 3

(5) From Exhibit 4

(6) From Exhibit 5

(7) From Exhibit 6

(8) Selected judgmentally.

(8) Considers data treatment of Post Remedial Care (PRC) costs. See the text for more details and Exhibit 29 for a data summary.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Incurred Loss Development**

(1)	(2)	(3)	(4)
Policy Period	Incurred Loss	Cumulative Incurred Loss Development Factor	Estimated Ultimate Loss
1994	15,311,761	1.045	16,007,750
1995	47,680,397	1.058	50,445,860
1996	59,850,169	1.071	64,081,337
1997	71,841,510	1.084	77,843,462
1998	99,117,917	1.097	108,687,443
1999	116,617,266	1.110	129,410,815
2000	69,002,590	1.123	77,491,421
2001	80,036,064	1.142	91,410,252
2002	64,338,664	1.163	74,804,720
2003	40,066,477	1.187	47,562,411
2004	54,571,481	1.217	66,400,647
2005	38,089,226	1.248	47,550,608
2006	27,932,270	1.286	35,916,779
2007	28,553,330	1.357	38,734,716
2008	25,186,714	1.452	36,559,387
2009	21,565,726	1.514	32,649,443
2010	20,731,651	1.590	32,956,030
2011	18,896,148	1.749	33,042,049
2012	15,243,932	1.801	27,455,409
2013	9,525,000	3.602	34,310,408
Total	924,158,293		1,123,320,947

(2) From Exhibit 25

(3) From Exhibit 11

(4) = (2) x (3)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Paid Loss Development Method**

(1)	(2)	(3)	(4)
Policy Period	Paid Loss	Cumulative Paid Loss Development Factor	Estimated Ultimate Loss
1994	14,717,050	1.077	15,855,784
1995	44,174,078	1.100	48,591,486
1996	54,500,935	1.123	61,210,000
1997	68,349,730	1.151	78,682,671
1998	94,098,293	1.180	111,031,934
1999	108,943,899	1.215	132,405,583
2000	64,457,740	1.252	80,689,251
2001	72,723,966	1.297	94,314,381
2002	57,084,147	1.345	76,770,547
2003	34,739,575	1.409	48,962,649
2004	45,878,641	1.487	68,218,695
2005	32,029,453	1.576	50,483,360
2006	22,905,540	1.686	38,629,852
2007	24,325,300	1.864	45,331,802
2008	19,898,848	2.124	42,274,411
2009	15,379,563	2.486	38,227,816
2010	12,273,389	3.107	38,133,793
2011	7,776,653	4.505	35,035,332
2012	2,506,650	10.047	25,183,267
2013	55,803	602.795	33,637,768
Total	796,819,253		1,163,670,380

(2) From Exhibit 25

(3) From Exhibit 11

(4) = (2) x (3)





**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Generalized Cape Cod Method - Reported Loss**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Policy Period	Ultimate Claim Counts	Trend Index	Age-to-Ultimate LDF (Reported Loss)	Portion of Ultimate Loss Reported	Cumulative Reported Loss at 6/30/2013	Trended Developed Loss to Exposure Ratio	Trended Expected Loss to Exposure Ratio	Expected Ultimate Loss	Estimated IBNR Losses	Estimated Ultimate Indemnity Losses
1994	170	2.038	1.045	95.7%	15,311,761	191,891	314,795	26,260,601	1,141,765	16,453,526
1995	389	1.969	1.058	94.5%	47,680,397	255,334	319,959	63,213,696	3,465,401	51,145,798
1996	383	1.902	1.071	93.4%	59,850,169	318,291	329,271	66,291,868	4,377,125	64,227,294
1997	433	1.838	1.084	92.3%	71,841,510	330,435	337,831	79,585,769	6,136,289	77,977,799
1998	529	1.776	1.097	91.2%	99,117,917	364,867	346,130	103,105,933	9,078,095	108,196,012
1999	574	1.716	1.110	90.1%	116,617,266	386,838	352,379	117,883,043	11,653,914	128,271,180
2000	356	1.658	1.123	89.0%	69,002,590	360,856	355,194	76,275,437	8,355,625	77,358,215
2001	333	1.602	1.142	87.6%	80,036,064	439,684	358,132	74,455,574	9,264,515	89,300,579
2002	349	1.460	1.163	86.0%	64,338,664	312,930	354,935	84,845,787	11,870,918	76,209,582
2003	241	1.411	1.187	84.2%	40,066,477	278,388	261,234	44,631,662	7,034,042	47,100,519
2004	319	1.363	1.217	82.2%	54,571,481	283,690	259,494	60,737,172	10,820,227	65,391,708
2005	236	1.317	1.248	80.1%	38,089,226	265,318	254,963	45,694,671	9,092,097	47,181,323
2006	207	1.272	1.286	77.8%	27,932,270	220,754	249,630	40,614,813	9,028,910	36,961,180
2007	184	1.229	1.357	73.7%	28,553,330	258,776	246,417	36,884,694	9,695,109	38,248,439
2008	177	1.188	1.452	68.9%	25,186,714	245,317	242,034	36,070,085	11,220,464	36,407,178
2009	174	1.148	1.514	66.1%	21,565,726	215,322	236,848	35,913,529	12,191,798	33,757,524
2010	156	1.109	1.590	62.9%	20,731,651	234,224	232,278	32,682,269	12,122,833	32,854,484
2011	187	1.071	1.749	57.2%	18,896,148	189,281	226,528	39,544,196	16,929,588	35,825,736
2012	178	1.035	1.801	55.5%	15,243,932	159,642	222,229	38,219,031	16,998,866	32,242,798
2013	182	1.000	3.602	27.8%	9,525,000	188,519	222,229	40,445,612	29,217,402	38,742,402
Total	5,757				924,158,293			1,143,355,442	209,694,983	1,133,853,276
Control	5,757				924,158,293					

## Notes

- (2) From Exhibit 7  
 (4) From Exhibit 11  
 (5)  $1.0 \div (4)$   
 (6) From Exhibit 25  
 (7)  $[(6) \times (3) \div ((2) \times (5))]$
- (3) Trend Rate = 

3.50%
-------

  
 (3) ILF \$1.5mln to \$1mln = 

1.06
------

  
 (3) The annual aggregate loss limit was \$1mln for 2001 and prior, \$3mln thereafter.  
 (8) CC Decay Factor = 

0.80
------

  
 (8) Separate calculations are performed for each period (before 2003, after 2002)  
 (9)  $(8) \times ((2) \div (3))$   
 (10)  $(9) \times (1 - (5))$   
 (11)  $(6) + (10)$



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Generalized Cape Cod Method - Paid Loss**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Policy Period	Ultimate Claim Counts	Trend Index	Age-to-Ultimate LDF (Paid Loss)	Portion of Ultimate Loss Paid	Cumulative Paid Loss at 6/30/2013	Trended Developed Loss to Exposure Ratio	Trended Expected Loss to Exposure Ratio	Expected Ultimate Loss	Estimated Unpaid Loss	Estimated Ultimate Loss
1994	170	2.038	1.077	92.8%	14,717,050	190,069	313,079	26,117,442	1,875,707	16,592,757
1995	389	1.969	1.100	90.9%	44,174,078	245,948	318,433	62,912,375	5,719,307	49,893,385
1996	383	1.902	1.123	89.0%	54,500,935	304,029	328,760	66,188,935	7,254,793	61,755,728
1997	433	1.838	1.151	86.9%	68,349,730	333,997	339,329	79,938,812	10,497,903	78,847,633
1998	529	1.776	1.180	84.7%	94,098,293	372,738	349,362	104,068,655	15,871,661	109,969,954
1999	574	1.716	1.215	82.3%	108,943,899	395,790	356,922	119,402,886	21,157,663	130,101,562
2000	356	1.658	1.252	79.9%	64,457,740	375,747	360,757	77,470,206	15,583,965	80,041,705
2001	333	1.602	1.297	77.1%	72,723,966	453,653	364,241	75,725,640	17,335,087	90,059,053
2002	349	1.460	1.345	74.4%	57,084,147	321,154	361,336	86,375,944	22,149,528	79,233,675
2003	241	1.411	1.409	71.0%	34,739,575	286,584	280,208	47,873,337	13,906,641	48,646,216
2004	319	1.363	1.487	67.3%	45,878,641	291,458	279,489	65,417,136	21,422,608	67,301,249
2005	236	1.317	1.576	63.4%	32,029,453	281,682	277,196	49,679,381	18,160,017	50,189,470
2006	207	1.272	1.686	59.3%	22,905,540	237,430	274,429	44,649,599	18,174,654	41,080,194
2007	184	1.229	1.864	53.7%	24,325,300	302,850	274,621	41,106,399	19,048,474	43,373,774
2008	177	1.188	2.124	47.1%	19,898,848	283,665	272,675	40,636,624	21,508,693	41,407,541
2009	174	1.148	2.486	40.2%	15,379,563	252,111	269,485	40,862,318	24,422,859	39,802,422
2010	156	1.109	3.107	32.2%	12,273,389	271,023	266,578	37,508,360	25,436,267	37,709,656
2011	187	1.071	4.505	22.2%	7,776,653	200,699	262,340	45,795,715	35,630,622	43,407,275
2012	178	1.035	10.047	10.0%	2,506,650	146,431	259,939	44,704,404	40,254,692	42,761,342
2013	182	1.000	602.795	0.2%	55,803	184,823	259,939	47,308,812	47,230,330	47,286,133
Total	5,757				796,819,253			1,203,742,979	402,641,473	1,199,460,726
Control	5,757				796,819,253					

## Notes

- (2) From Exhibit 7  
 (4) From Exhibit 11  
 (5)  $1.0 \div (4)$   
 (6) From Exhibit 25  
 (7)  $[(6) \times (3) \div ((2) \times (5))]$
- |     |                          |       |
|-----|--------------------------|-------|
| (3) | Trend Rate =             | 3.50% |
| (3) | ILF \$1.5mln to \$1mln = | 1.06  |
| (8) | CC Decay Factor =        | 0.80  |
- (8) Separate calculations are performed for each period (before 2003, after 2002)  
 (9)  $(8) \times ((2) \div (3))$   
 (10)  $(9) \times (1 - (5))$   
 (11)  $(6) + (10)$



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Estimated Ultimate Number of Claims**

(1)	(2)	(3)	(4)
Policy Period	Reported Claim Counts	Cumulative Reported Claim Count Development Factor	Estimated Ultimate Claims Counts
1994	170	1.000	170
1995	389	1.000	389
1996	383	1.000	383
1997	433	1.000	433
1998	529	1.000	529
1999	574	1.000	574
2000	356	1.000	356
2001	333	1.000	333
2002	349	1.000	349
2003	241	1.000	241
2004	319	1.000	319
2005	236	1.000	236
2006	207	1.000	207
2007	184	1.000	184
2008	177	1.000	177
2009	174	1.000	174
2010	156	1.000	156
2011	187	1.000	187
2012	178	1.000	178
2013	91	2.000	182
Total	5,666		5,757

(2) From Exhibit 27

(3) From Exhibit 11

(4) = (2) x (3)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Estimated Ultimate ALAE**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Ultimate ALAE Indications				
Policy Period	Paid ALAE	Paid ALAE Development Method	Paid ALAE Cape Cod Method	Selected Ultimate ALAE	Estimated Ultimate Loss	Estimated ALAE Ratio
1994	2,243,806	2,367,215	2,308,283	2,350,000	16,100,000	0.146
1995	1,211,556	1,344,827	1,595,753	1,595,753	49,982,266	0.032
1996	1,569,935	1,794,907	2,194,752	2,312,881	63,650,636	0.036
1997	2,614,271	3,138,341	3,648,748	3,648,748	78,337,891	0.047
1998	5,168,911	6,515,352	6,981,686	7,000,000	109,859,688	0.064
1999	5,278,273	7,052,393	7,942,391	7,900,000	131,357,414	0.060
2000	3,104,229	4,437,948	5,050,843	5,100,000	79,570,010	0.064
2001	2,638,453	4,036,097	5,293,985	5,293,985	93,297,936	0.057
2002	2,163,461	3,574,251	4,529,889	4,500,000	76,573,964	0.059
2003	1,693,604	3,077,801	3,647,300	3,600,000	49,000,000	0.073
2004	2,508,837	5,152,044	5,640,937	5,640,937	68,200,000	0.083
2005	2,014,661	4,675,064	4,581,085	4,675,064	49,896,809	0.094
2006	1,211,684	3,205,382	3,426,647	3,426,647	39,020,687	0.088
2007	1,253,950	3,814,771	4,037,579	4,037,579	45,000,000	0.090
2008	1,379,413	4,825,923	4,170,238	5,000,000	42,000,000	0.119
2009	1,413,265	5,883,783	4,268,497	6,000,000	40,000,000	0.150
2010	811,890	4,596,943	3,779,883	5,000,000	38,000,000	0.132
2011	797,955	7,002,967	4,481,134	6,000,000	43,400,000	0.138
2012	339,366	6,999,062	4,296,235	6,004,147	43,000,000	0.140
2013	19,130	7,890,717	4,374,596	6,305,628	44,712,000	0.141
Total	39,436,650	91,385,787	86,250,461	95,391,369	1,200,959,303	

(2) From Exhibit 25

(3) From Exhibit 9

(4) From Exhibit 10

(5) Judgmentally Selected

(6) From Exhibit 2

(7) = (5) ÷ (6)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Paid ALAE Development Method**

(1)	(2)	(3)	(4)
Policy Period	Paid ALAE	Cumulative Development Factor	Estimated Ultimate ALAE
1994	2,243,806	1.055	2,367,215
1995	1,211,556	1.110	1,344,827
1996	1,569,935	1.143	1,794,907
1997	2,614,271	1.200	3,138,341
1998	5,168,911	1.260	6,515,352
1999	5,278,273	1.336	7,052,393
2000	3,104,229	1.430	4,437,948
2001	2,638,453	1.530	4,036,097
2002	2,163,461	1.652	3,574,251
2003	1,693,604	1.817	3,077,801
2004	2,508,837	2.054	5,152,044
2005	2,014,661	2.321	4,675,064
2006	1,211,684	2.645	3,205,382
2007	1,253,950	3.042	3,814,771
2008	1,379,413	3.499	4,825,923
2009	1,413,265	4.163	5,883,783
2010	811,890	5.662	4,596,943
2011	797,955	8.776	7,002,967
2012	339,366	20.624	6,999,062
2013	19,130	412.479	7,890,717
Total	39,436,650		91,385,787

(2) From Exhibit 25

(3) From Exhibit 11

(4) = (2) x (3)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Generalized Cape Cod Method - Paid ALAE**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Policy Period	Ultimate Loss	Trend Index	Age-to-Ultimate LDF (Paid ALAE)	Portion of Ultimate Expense Paid	Cumulative Paid ALAE at 6/30/2013	Trended Developed ALAE to Exposure Ratio	Trended Expected ALAE to Exposure Ratio	Expected Ultimate ALAE	Estimated Unpaid ALAE	Estimated Ultimate ALAE
1994	16,100,000	1.133	1.055	94.8%	2,243,806	0.167	0.087	1,236,795	64,477	2,308,283
1995	49,982,266	1.123	1.110	90.1%	1,211,556	0.030	0.087	3,876,893	384,197	1,595,753
1996	63,650,636	1.112	1.143	87.5%	1,569,935	0.031	0.087	4,985,018	624,817	2,194,752
1997	78,337,891	1.101	1.200	83.3%	2,614,271	0.044	0.087	6,194,867	1,034,477	3,648,748
1998	109,859,688	1.091	1.260	79.3%	5,168,911	0.065	0.087	8,771,918	1,812,775	6,981,686
1999	131,357,414	1.080	1.336	74.8%	5,278,273	0.058	0.087	10,590,267	2,664,118	7,942,391
2000	79,570,010	1.070	1.430	69.9%	3,104,229	0.060	0.087	6,477,357	1,946,614	5,050,843
2001	93,297,936	1.059	1.530	65.4%	2,638,453	0.046	0.087	7,668,609	2,655,532	5,293,985
2002	76,573,964	1.112	1.652	60.5%	2,163,461	0.052	0.087	5,995,369	2,366,428	4,529,889
2003	49,000,000	1.101	1.817	55.0%	1,693,604	0.069	0.098	4,344,098	1,953,696	3,647,300
2004	68,200,000	1.091	2.054	48.7%	2,508,837	0.082	0.098	6,104,978	3,132,100	5,640,937
2005	49,896,809	1.080	2.321	43.1%	2,014,661	0.101	0.098	4,509,917	2,566,424	4,581,085
2006	39,020,687	1.070	2.645	37.8%	1,211,684	0.088	0.098	3,561,122	2,214,963	3,426,647
2007	45,000,000	1.060	3.042	32.9%	1,253,950	0.090	0.098	4,146,680	2,783,629	4,037,579
2008	42,000,000	1.049	3.499	28.6%	1,379,413	0.121	0.098	3,907,810	2,790,825	4,170,238
2009	40,000,000	1.039	4.163	24.0%	1,413,265	0.153	0.098	3,757,857	2,855,232	4,268,497
2010	38,000,000	1.029	5.662	17.7%	811,890	0.125	0.098	3,604,624	2,967,993	3,779,883
2011	43,400,000	1.020	8.776	11.4%	797,955	0.165	0.098	4,156,830	3,683,179	4,481,134
2012	43,000,000	1.010	20.624	4.8%	339,366	0.164	0.098	4,158,503	3,956,869	4,296,235
2013	44,712,000	1.000	412.479	0.2%	19,130	0.176	0.098	4,366,051	4,355,466	4,374,596
Total	1,200,959,303				39,436,650			102,415,563	46,813,811	86,250,461
Control	1,200,959,303				39,436,650					

## Notes

(2) Selected exposure proxy; values from Exhibit 2

(4) From Exhibit 11

(5)  $1.0 \div (4)$ 

(6) Exhibit 25

(7)  $[(6) \times (3) \div (2) \times (5)]$ (3) ALAE-to-Loss Trend Rate = 

1.0%
------

(3) ILF \$1.5mln to \$1mln = 

1.06
------

(8) CC Decay Factor = 

1.00
------

(8) Separate calculations are performed for each period (before 2003, after 2002)

(9)  $(8) \times ((2) \div (3))$ (10)  $(9) \times (1 - (5))$ (11)  $(6) + (10)$



# **Pennsylvania Insurance Department / Bureau of Special Funds** **USTIF Loss Fund**

## **USTIF Loss Fund Experience at 6/30/2013** **Summary of Development Factors**

(1)	(2)	(3)	(4)	(5)	(6)
Policy Period	Age at 6/30/2013	Cumulative Development Factors			
		Reported Loss	Paid Loss	Rptd Claim Count	Paid ALAE
1994	234	1.045	1.077	1.000	1.055
1995	222	1.058	1.100	1.000	1.110
1996	210	1.071	1.123	1.000	1.143
1997	198	1.084	1.151	1.000	1.200
1998	186	1.097	1.180	1.000	1.260
1999	174	1.110	1.215	1.000	1.336
2000	162	1.123	1.252	1.000	1.430
2001	150	1.142	1.297	1.000	1.530
2002	138	1.163	1.345	1.000	1.652
2003	126	1.187	1.409	1.000	1.817
2004	114	1.217	1.487	1.000	2.054
2005	102	1.248	1.576	1.000	2.321
2006	90	1.286	1.686	1.000	2.645
2007	78	1.357	1.864	1.000	3.042
2008	66	1.452	2.124	1.000	3.499
2009	54	1.514	2.486	1.000	4.163
2010	42	1.590	3.107	1.000	5.662
2011	30	1.749	4.505	1.000	8.776
2012	18	1.801	10.047	1.000	20.624
2013	6	3.602	602.795	2.000	412.479

(3) From Exhibit 12  
(4) From Exhibit 13  
(5) From Exhibit 14  
(6) From Exhibit 15



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Incurred Development - Loss**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months 6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	2,293,319	9,483,332	8,899,568	8,587,163	7,930,656	8,314,481	10,736,650	11,535,278	12,987,106	13,420,047	13,621,686	13,783,936	13,918,876	14,149,757	14,804,757	14,850,393	15,046,887	15,204,018	15,404,798	15,311,761
1995	8,613,250	16,098,768	18,298,725	19,905,459	21,046,453	24,235,853	30,196,463	33,211,371	35,802,138	37,475,351	38,358,906	40,998,671	42,354,370	44,963,740	46,000,516	45,651,955	46,508,480	47,133,584	47,680,397	
1996	8,936,404	23,368,929	25,913,942	27,625,579	30,510,919	36,563,786	40,301,207	44,222,184	48,484,299	49,507,709	52,006,708	54,189,892	55,975,467	57,184,645	57,091,549	58,369,113	59,219,253	59,850,169		
1997	12,183,729	27,861,716	28,259,518	36,177,302	42,526,638	47,668,066	57,301,838	61,349,601	64,189,876	65,467,840	67,806,573	68,583,281	70,477,256	71,766,471	72,414,114	72,038,696	71,841,510			
1998	19,943,710	35,996,986	41,851,859	51,656,812	60,571,036	68,716,024	78,270,421	83,788,081	86,194,303	92,675,198	93,892,790	94,387,396	96,041,089	97,415,284	98,289,793	99,117,917				
1999	26,009,771	42,286,868	52,273,156	65,412,219	83,690,530	93,546,446	96,396,129	101,152,488	107,169,674	109,940,818	112,281,362	113,503,042	115,006,533	116,114,764	116,617,266					
2000	18,092,663	31,208,525	39,242,788	46,202,717	53,727,961	60,561,432	62,671,231	64,115,685	64,428,489	65,452,269	66,893,820	68,463,377	68,437,679	69,002,590						
2001	16,125,130	42,623,490	49,903,528	54,128,193	60,019,616	65,645,806	69,282,911	70,125,237	73,221,447	75,070,881	76,907,829	79,654,357	80,036,064							
2002	27,341,744	41,824,436	43,658,109	46,933,913	51,841,755	55,112,330	56,245,550	59,407,302	61,309,632	62,084,385	63,968,298	64,338,664								
2003	11,730,000	24,991,591	29,680,371	30,587,380	32,048,460	32,270,718	34,380,712	36,594,209	38,197,103	39,113,273	40,066,477									
2004	21,620,000	40,404,425	40,479,491	48,636,015	47,958,998	47,745,263	51,467,210	54,715,996	54,065,009	54,571,481										
2005	13,735,000	30,634,789	29,431,767	29,602,249	32,601,798	33,741,333	35,239,796	36,736,479	38,089,226											
2006	11,575,000	22,574,518	20,831,916	22,126,220	23,345,645	24,336,754	27,160,957	27,932,270												
2007	9,955,000	20,225,486	20,703,206	24,435,623	26,181,452	27,704,644	28,553,330													
2008	10,485,000	19,577,437	22,432,876	23,522,269	24,498,073	25,186,714														
2009	11,665,000	22,256,756	21,488,761	20,690,691		21,565,726														
2010	9,333,000	17,533,011	17,450,938	20,731,651																
2011	9,010,000	20,274,379	18,896,148																	
2012	9,061,000	15,243,932																		
2013	9,525,000																			
Policy Period	6 to 18	18 to 30	30 to 42	42 to 54	54 to 66	66 to 78	78 to 90	90 to 102	102 to 114	114 to 126	126 to 138	138 to 150	150 to 162	162 to 174	174 to 186	186 to 198	198 to 210	210 to 222	222 to 234	
1994	4.135	0.938	0.965	0.924	1.048	1.291	1.074	1.126	1.033	1.015	1.012	1.010	1.017	1.046	1.003	1.013	1.010	1.013	0.994	
1995	1.869	1.137	1.088	1.057	1.152	1.246	1.100	1.078	1.047	1.024	1.069	1.033	1.062	1.023	0.992	1.019	1.013	1.012		
1996	2.615	1.109	1.066	1.104	1.198	1.102	1.097	1.096	1.021	1.050	1.042	1.033	1.022	0.998	1.022	1.015	1.011			
1997	2.287	1.014	1.280	1.176	1.121	1.202	1.071	1.046	1.020	1.036	1.011	1.028	1.018	1.009	0.995	0.997				
1998	1.805	1.163	1.234	1.173	1.134	1.139	1.070	1.053	1.051	1.013	1.005	1.018	1.014	1.009	1.008					
1999	1.626	1.236	1.251	1.279	1.118	1.030	1.049	1.059	1.026	1.021	1.011	1.013	1.010	1.004						
2000	1.725	1.257	1.177	1.163	1.127	1.035	1.023	1.005	1.016	1.022	1.023	1.000	1.008							
2001	2.643	1.171	1.085	1.109	1.094	1.055	1.012	1.044	1.025	1.024	1.036	1.005								
2002	1.530	1.044	1.075	1.105	1.063	1.021	1.056	1.032	1.013	1.030	1.006									
2003	2.131	1.188	1.031	1.048	1.007	1.065	1.064	1.044	1.024											
2004	1.869	1.002	1.201	0.986	0.996	1.078	1.063	0.988	1.009											
2005	2.230	0.961	1.006	1.101	1.035	1.044	1.042	1.037												
2006	1.950	0.923	1.062	1.055	1.042	1.116	1.028													
2007	2.032	1.024	1.180	1.071	1.058	1.031														
2008	1.867	1.146	1.049	1.041	1.028															
2009	1.908	0.965	0.963	1.042																
2010	1.879	0.995	1.188																	
2011	2.250	0.932																		
2012	1.682																			
3 yr. Weighted Avg.	1.936	0.963	1.058	1.052	1.043	1.060	1.048	1.018	1.014	1.027	1.023	1.007	1.011	1.007	1.008	1.009	1.012			
3 yr. Simple Avg.	1.937	0.964	1.066	1.052	1.043	1.064	1.045	1.023	1.015	1.026	1.022	1.006	1.011	1.007	1.009	1.010	1.012			
6 yr. Weighted Avg.	1.934	0.995	1.066	1.042	1.023	1.055	1.043	1.024	1.020	1.022	1.015	1.015	1.018	1.009						
5 yr. Simple Avg.	1.917	1.012	1.088	1.062	1.032	1.067	1.051	1.029	1.017	1.024	1.016	1.013	1.014	1.009	1.004					
All yr. Simple Avg.	2.107	1.067	1.112	1.090	1.081	1.104	1.058	1.051	1.026	1.026	1.024	1.017	1.021	1.015	1.004	1.011	1.012	1.012	0.994	
All yr. Weighted Avg.	1.958	1.063	1.130	1.115	1.088	1.083	1.054	1.044	1.026	1.026	1.021	1.016	1.018	1.009	1.005	1.009	1.012	1.012	0.994	
Weighted Avg. for Period 2004+	1.961	0.991	1.098	1.042	1.027	1.067	1.049	1.008	1.009											
Weighted Avg. for Period 2003+	1.978	1.013	1.088	1.043	1.023	1.066	1.052	1.018	1.015	1.024										
Prior Selected	6 to 18	18 to 30	30 to 42	42 to 54	54 to 66	66 to 78	78 to 90	90 to 102	102 to 114	114 to 126	126 to 138	138 to 150	150 to 162	162 to 174	174 to 186	186 to 198	198 to 210	210 to 222	222 to Ultimate*	
	2.200	1.065	1.100	1.070	1.060	1.075	1.060	1.050	1.027	1.026	1.025	1.020	1.020	1.015	1.015	1.015	1.084 (ATU)			
Selected Age-to-Age Factor	2.000	1.030	1.100	1.050	1.043	1.070	1.055	1.030	1.026	1.025	1.021	1.018	1.017	1.012	1.012	1.012	1.012	1.012	1.058	
Age-to-Ultimate	3.602	1.801	1.749	1.590	1.514	1.452	1.357	1.286	1.248	1.217	1.187	1.163	1.142	1.123	1.110	1.097	1.084	1.071	1.058	

Notes

The tail factor at age 222 was selected based on our professional judgment and a review of the indications under various curve fits (exponential and inverse power).





**Pennsylvania Insurance Department / Bureau of Special Funds**  
**USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Paid Development - Loss

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months 6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	26,549	1,085,543	2,641,954	4,124,329	5,084,843	5,722,553	7,242,469	8,316,696	9,155,065	9,847,402	10,410,633	10,843,786	11,300,869	11,611,420	13,170,559	13,536,456	13,869,548	14,164,610	14,480,115	14,717,050
1995	80,363	4,047,081	8,939,146	12,050,595	14,578,328	17,686,672	20,515,552	23,550,880	26,360,529	28,623,483	30,913,850	33,242,746	35,089,831	37,835,891	39,490,585	40,853,101	42,237,336	43,319,945	44,174,078	
1996	378,046	5,771,167	11,223,864	16,143,606	19,774,295	24,111,356	27,926,570	31,769,564	35,128,689	38,581,188	41,889,846	45,280,494	47,736,241	49,698,931	50,662,724	52,230,107	53,343,725	54,500,935		
1997	815,371	7,821,377	14,581,583	20,702,527	27,113,577	32,834,148	38,065,738	44,432,922	48,428,705	52,335,301	55,708,485	59,170,730	61,760,924	64,112,761	65,930,596	67,350,780	68,349,730			
1998	669,532	12,537,723	21,891,260	30,297,467	39,075,413	47,693,752	55,066,893	62,331,012	69,316,570	74,999,311	80,581,753	84,007,096	87,261,489	90,580,043	91,933,051	94,098,293				
1999	995,206	10,797,670	24,660,509	36,775,269	48,489,269	59,198,778	68,146,592	75,693,025	82,690,689	89,372,768	96,370,703	100,800,313	103,879,099	106,636,646	108,943,899					
2000	1,575,064	8,023,881	18,230,077	25,655,782	32,636,247	39,168,113	45,189,506	49,990,189	53,605,391	56,847,394	59,595,706	61,370,735	63,055,284	64,457,740						
2001	808,910	8,227,308	18,164,142	27,111,459	36,289,194	44,338,472	50,928,805	55,892,131	60,352,298	64,535,713	68,038,275	70,812,422	72,723,966							
2002	216,354	6,839,032	14,180,137	22,166,579	29,048,012	35,829,517	41,696,455	46,911,947	50,198,081	52,805,917	55,249,309	57,084,147								
2003	116,449	4,102,891	9,691,219	15,453,958	19,696,226	23,171,871	26,550,349	29,164,849	31,245,190	33,050,557	34,739,575									
2004	55,434	4,053,646	10,308,270	21,016,687	27,298,840	32,681,469	37,681,242	41,514,100	43,927,541	45,878,641										
2005	115,754	3,587,812	10,699,396	15,753,216	20,226,741	23,938,820	26,988,448	29,919,189	32,029,453											
2006	98,943	3,742,351	8,422,288	12,411,065	15,576,114	18,619,114	20,919,129	22,905,540												
2007	285,928	5,676,478	11,209,781	15,793,250	19,388,678	21,896,733														
2008	473,915	5,506,780	10,865,540	14,655,030	17,327,320	19,898,848														
2009	296,668	4,890,464	9,654,610	12,775,569	15,379,563															
2010	277,174	4,103,941	8,576,747	12,273,389																
2011	160,417	3,224,571	7,776,653																	
2012	67,306	2,506,650																		
2013	55,803																			
Policy Period	6 to 18	18 to 30	30 to 42	42 to 54	54 to 66	66 to 78	78 to 90	90 to 102	102 to 114	114 to 126	126 to 138	138 to 150	150 to 162	162 to 174	174 to 186	186 to 198	198 to 210	210 to 222	222 to 234	
1994	40,888	2,434	1,561	1,233	1,125	1,266	1,148	1,101	1,076	1,057	1,042	1,042	1,027	1,134	1,028	1,025	1,021	1,022	1,016	
1995	50,360	2,209	1,348	1,210	1,213	1,160	1,148	1,119	1,086	1,080	1,075	1,056	1,078	1,044	1,035	1,034	1,026	1,020		
1996	15,266	1,945	1,438	1,225	1,219	1,158	1,138	1,106	1,098	1,086	1,081	1,054	1,041	1,019	1,031	1,021	1,022			
1997	9,592	1,864	1,420	1,310	1,211	1,159	1,167	1,090	1,081	1,064	1,062	1,044	1,038	1,028	1,015					
1998	18,726	1,746	1,384	1,290	1,221	1,155	1,132	1,112	1,082	1,074	1,043	1,039	1,038	1,015	1,024					
1999	10,850	2,284	1,491	1,319	1,221	1,151	1,111	1,092	1,081	1,078	1,046	1,031	1,027	1,022						
2000	5,094	2,272	1,407	1,272	1,200	1,154	1,106	1,072	1,060	1,048	1,030	1,027	1,022							
2001	10,171	2,208	1,493	1,339	1,222	1,149	1,097	1,080	1,069	1,054	1,041	1,027								
2002	31,610	2,073	1,563	1,310	1,233	1,164	1,125	1,070	1,052	1,046	1,033									
2003	35,233	2,362	1,595	1,275	1,176	1,146	1,098	1,071	1,058	1,051										
2004	73,126	2,543	2,039	1,299	1,197	1,153	1,102	1,058	1,044											
2005	30,995	2,982	1,472	1,284	1,184	1,127	1,109	1,071												
2006	37,823	2,251	1,474	1,255	1,195	1,124	1,095													
2007	19,853	1,975	1,409	1,228	1,129	1,111														
2008	11,620	1,973	1,349	1,182	1,148															
2009	16,485	1,974	1,323	1,204																
2010	14,806	2,090	1,431																	
2011	20,101	2,412																		
2012	37,243																			
3 yr. Weighted Avg.	19,480	2,128	1,365	1,205	1,155	1,121	1,102	1,066	1,051	1,051	1,035	1,029	1,029	1,021	1,025	1,022	1,023			
3 yr. Simple Avg.	24,050	2,159	1,368	1,205	1,158	1,121	1,102	1,067	1,051	1,051	1,035	1,028	1,029	1,022	1,025	1,023				
6 yr. Weighted Avg.	16,593	2,082	1,408	1,247	1,173	1,141	1,105	1,071	1,054	1,062	1,043	1,036	1,036	1,027						
5 yr. Simple Avg.	20,051	2,085	1,397	1,231	1,171	1,132	1,106	1,070	1,057	1,056	1,038	1,034	1,033	1,026	1,028					
All yr. Simple Avg.	25,781	2,200	1,482	1,265	1,193	1,155	1,121	1,087	1,072	1,064	1,050	1,040	1,039	1,044	1,028	1,024	1,023	1,021	1,016	
All yr. Weighted Avg.	14,181	2,131	1,473	1,278	1,202	1,151	1,119	1,086	1,071	1,065	1,048	1,037	1,036	1,027	1,026	1,022	1,023	1,020	1,016	
Weighted Avg. for Period 2004+	20,361	2,228	1,501	1,247	1,172	1,132	1,102	1,063	1,044											
Weighed Avg. for Period 2003+	21,250	2,242	1,512	1,251	1,173	1,134	1,101	1,066	1,050	1,051										
Prior Selected	6 to 18	18 to 30	30 to 42	42 to 54	54 to 66	66 to 78	78 to 90	90 to 102	102 to 114	114 to 126	126 to 138	138 to 150	150 to 162	162 to 174	174 to 186	186 to 198	198 to 210	210 to 222	222 to Ultimate*	
	70,000	2,100	1,480	1,280	1,190	1,150	1,110	1,080	1,074	1,066	1,050	1,040	1,040	1,035	1,030	1,030	1,161 (ATU)	n/a	n/a	
Selected Age-to-Age Factor	60,000	2,230	1,450	1,250	1,170	1,140	1,105	1,070	1,060	1,055	1,048	1,037	1,036	1,030	1,030	1,025	1,025	1,021	1,100	
Age-to-Ultimate	602,795	10,047	4,505	3,107	2,486	2,124	1,864	1,686	1,576	1,487	1,409	1,345	1,297	1,252	1,215	1,180	1,151	1,123	1,100	

**Notes**

The tail factor at age 222 was selected based on our professional judgment and a review of the indications under various curve fits (exponential and inverse power).



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Reported Claim Count Development

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	55	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
1995	168	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389
1996	165	383	383	383	383	383	383	383	383	383	383	383	383	383	383	383	383	383	383	383
1997	198	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433
1998	267	529	529	529	529	529	529	529	529	529	529	529	529	529	529	529	529	529	529	529
1999	375	574	574	574	574	574	574	574	574	574	574	574	574	574	574	574	574	574	574	574
2000	224	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356
2001	134	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333
2002	238	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349
2003	100	241	241	241	241	241	241	241	241	241	241	241	241	241	241	241	241	241	241	241
2004	178	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
2005	100	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236
2006	103	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207
2007	85	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184
2008	90	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177
2009	94	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174
2010	80	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156
2011	75	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
2012	89	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178
2013	91																			
Policy Period	6 to 18	18 to 30	30 to 42	42 to 54	54 to 66	66 to 78	78 to 90	90 to 102	102 to 114	114 to 126	126 to 138	138 to 150	150 to 162	162 to 174	174 to 186	186 to 198	198 to 210	210 to 222	222 to 234	
1994	3.091	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	2.315	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	2.321	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	2.187	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.981	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.531	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.589	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	2.485	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.466	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	2.410	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.792	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	2.360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	2.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007	2.165	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.967	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009	1.851	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2011	2.493	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	2.000																			
3 yr. Weighted Avg.	2.135	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 yr. Simple Avg.	2.148	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6 yr. Weighted Avg.	2.058	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 yr. Simple Avg.	2.052	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
All yr. Simple Avg.	2.103	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Weighted Avg. for Period 2004+	2.034	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Weighted Avg. for Period 2003+	2.071	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior Selected	6 to 18	18 to 30	30 to 42	42 to 54	54 to 66	66 to 78	78 to 90	90 to 102	102 to 114	114 to 126	126 to 138	138 to 150	150 to 162	162 to 174	174 to 186	186 to Ultimate				
	2.080	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
Selected Age-to-Age Factor	2.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
Age-to-Ultimate	2.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Paid Development - Expense**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months 6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	-	27,433	77,232	111,899	200,420	216,899	240,084	248,007	322,341	503,072	841,418	1,351,828	1,731,422	1,977,574	2,144,379	2,173,272	2,212,159	2,220,431	2,230,005	2,243,806
1995	-	40,578	86,977	134,486	165,985	257,409	305,628	337,182	387,515	513,823	559,140	654,134	797,625	910,077	1,026,703	1,075,096	1,136,960	1,161,275	1,211,556	
1996	-	11,995	39,431	162,846	200,709	210,893	215,730	231,958	286,209	323,819	461,196	656,044	862,517	1,041,758	1,225,521	1,362,266	1,439,164	1,569,935		
1997	-	54,402	176,759	315,193	451,955	731,022	1,383,513	1,629,688	1,894,449	1,725,066	1,840,136	2,012,079	2,133,015	2,280,526	2,418,637	2,517,438	2,614,271			
1998	-	104,336	193,899	470,205	1,162,714	1,764,606	2,044,125	2,441,676	3,126,889	3,532,562	3,875,709	4,179,944	4,431,888	4,724,240	4,945,082	5,168,911				
1999	-	12,007	86,954	403,140	729,973	983,522	1,487,175	2,468,786	3,091,807	3,600,118	3,991,427	4,280,935	4,669,028	4,987,671	5,278,273					
2000	150	939	117,093	298,953	571,205	1,354,247	1,862,050	2,067,526	2,354,948	2,481,623	2,648,059	2,867,994	3,017,192	3,104,229						
2001	993	148,978	312,938	494,399	638,920	824,646	1,335,042	1,559,623	1,779,356	2,019,045	2,292,089	2,469,608	2,638,453							
2002	11,730	250,054	530,452	764,930	880,062	1,027,233	1,167,726	1,359,653	1,516,322	1,724,898	1,952,331	2,163,461								
2003	61,448	360,265	600,571	709,946	886,715	965,225	1,080,816	1,171,579	1,333,505	1,499,649	1,693,604									
2004	8,494	258,111	872,659	1,268,350	1,467,004	1,699,147	1,880,551	2,055,445	2,242,522	2,508,837										
2005	14,481	199,050	555,531	806,211	1,101,947	1,301,221	1,473,232	1,759,834	2,014,661											
2006	10,227	154,866	343,412	576,952	807,757	941,402	1,030,471	1,211,684												
2007	5,832	250,350	524,980	762,100	947,108	1,121,420	1,253,950													
2008	10,579	172,403	398,549	751,925	1,097,937	1,379,413														
2009	6,750	330,615	778,014	1,084,747	1,413,265															
2010	14,243	253,019	566,659	811,890																
2011	16,050	350,888	797,955																	
2012	4,950	339,366																		
2013	19,130																			
Policy Period	6 to 18	18 to 30	30 to 42	42 to 54	54 to 66	66 to 78	78 to 90	90 to 102	102 to 114	114 to 126	126 to 138	138 to 150	150 to 162	162 to 174	174 to 186	186 to 198	198 to 210	210 to 222	222 to 234	
1994	-	2.815	1.449	1.791	1.082	1.107	1.033	1.300	1.561	1.673	1.607	1.281	1.142	1.084	1.013	1.018	1.004	1.004	1.006	
1995	-	2.143	1.546	1.234	1.551	1.187	1.103	1.149	1.326	1.088	1.170	1.219	1.141	1.128	1.047	1.058	1.021	1.043		
1996	-	3.287	4.130	1.233	1.051	1.023	1.075	1.234	1.131	1.424	1.422	1.315	1.208	1.176	1.112	1.056	1.091			
1997	-	3.249	1.783	1.434	1.617	1.893	1.178	1.040	1.018	1.067	1.093	1.060	1.069	1.061	1.041	1.038				
1998	-	1.858	2.425	2.473	1.518	1.158	1.194	1.281	1.130	1.097	1.078	1.060	1.066	1.047	1.045					
1999	-	7.242	4.636	1.811	1.347	1.512	1.660	1.252	1.164	1.109	1.073	1.091	1.068							
2000	6.260	124,700	2,553	1,911	2,371	1,375	1,110	1,139	1,054	1,067	1,083	1,052	1,029							
2001	150,028	2,101	1,590	1,292	1,291	1,619	1,168	1,141	1,135	1,135	1,077	1,068								
2002	21,317	2,121	1,442	1,151	1,167	1,137	1,164	1,115	1,138	1,132	1,108									
2003	5,863	1,667	1,182	1,249	1,089	1,120	1,084	1,138	1,125	1,129										
2004	30,387	3,381	1,453	1,157	1,158	1,107	1,093	1,091	1,119											
2005	13,746	2,791	1,451	1,367	1,181	1,132	1,195	1,145												
2006	15,143	2,217	1,680	1,400	1,165	1,095	1,176													
2007	42,927	2,097	1,452	1,243	1,184	1,118														
2008	16,297	2,312	1,887	1,460	1,256															
2009	48,980	2,353	1,394	1,303																
2010	17,764	2,240	1,433																	
2011	21,862	2,274																		
2012	68,559																			
3 yr. Weighted Avg.	26.765	2.293	1.519	1.331	1.207	1.117	1.147	1.121	1.126	1.132	1.088	1.073	1.058	1.054	1.053	1.048	1.034			
3 yr. Simple Avg.	36.062	2.289	1.571	1.335	1.202	1.115	1.154	1.125	1.127	1.132	1.090	1.070	1.054	1.055	1.066	1.051	1.039			
6 yr. Weighted Avg.	29.050	2.255	1.514	1.302	1.174	1.118	1.144	1.127	1.123	1.107	1.083	1.078	1.071	1.070						
5 yr. Simple Avg.	34.692	2.255	1.569	1.355	1.189	1.114	1.142	1.126	1.114	1.114	1.084	1.066	1.088	1.094	1.052					
All yr. Simple Avg.	35.318	9.492	1.969	1.469	1.335	1.256	1.172	1.169	1.173	1.192	1.190	1.143	1.103	1.092	1.052	1.043	1.039	1.024	1.006	
All yr. Weighted Avg.	20.007	2.369	1.585	1.396	1.307	1.251	1.196	1.163	1.127	1.124	1.118	1.098	1.078	1.070	1.046	1.039	1.034	1.018	1.006	
Weighed Avg. for Period 2004+	25.202	2.457	1.501	1.302	1.188	1.114	1.147	1.116	1.119											
Weighed Avg. for Period 2003+	17.438	2.334	1.459	1.296	1.174	1.115	1.134	1.121	1.121	1.129										
Prior Selected ATA	6 to 18	18 to 30	30 to 42	42 to 54	54 to 66	66 to 78	78 to 90	90 to 102	102 to 114	114 to 126	126 to 138	138 to 150	150 to 162	162 to 174	174 to 186	186 to 198	198 to 210	210 to 222	222 to Ultimate*	
	20.000	2.400	1.650	1.370	1.190	1.180	1.180	1.170	1.150	1.120	1.100	1.100	1.100	1.100	1.100	1.060	1.2 (ATU)	n/a	n/a	
Selected Age-to-Age Factor	20.000	2.350	1.550	1.360	1.190	1.150	1.140	1.130	1.130	1.100	1.080	1.070	1.070	1.060	1.05	1.050	1.030	1.11		
Age-to-Ultimate	412.479	20.624	8.776	5.662	4.163	3.499	3.042	2.645	2.321	2.054	1.817	1.652	1.530	1.430	1.336	1.260	1.200	1.143	1.110	

**Notes**

The tail factor at age 222 was selected based on our professional judgment and a review of the indications under various curve fits (exponential and inverse power).



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Closed Claim Counts

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months 6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	10	117	133	123	134	141	142	148	146	145	148	150	154	155	158	160	161	161	160	162
1995	41	212	213	256	272	275	271	275	277	281	295	295	304	315	318	328	335	337	342	
1996	24	130	201	234	242	260	262	263	266	273	277	289	297	301	312	314	321	326		
1997	16	165	242	254	278	277	281	288	311	320	332	342	351	357	364	371	379			
1998	12	218	281	315	321	331	346	362	371	391	405	418	430	436	447	455				
1999	32	163	295	275	284	300	339	370	381	403	416	427	437	449	472					
2000	22	147	147	156	176	204	218	228	250	259	267	274	281	287						
2001	10	38	62	105	131	145	160	184	191	200	213	221	239							
2002	16	63	143	183	196	213	243	251	255	259	264	274								
2003	10	61	98	113	132	144	156	160	170	175	183									
2004	9	70	122	147	173	187	202	213	226	237										
2005	6	55	112	133	142	154	158	165	176											
2006	12	71	106	117	133	143	151	157												
2007	13	68	95	106	115	124	130													
2008	14	66	87	95	108	119														
2009	6	51	76	94	110															
2010	9	47	85	94																
2011	6	60	97																	
2012	18	76																		
2013	15																			



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Open Claims**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months 6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	45	53	37	47	36	29	28	22	24	25	22	20	16	15	12	10	9	9	10	8
1995	127	177	176	133	117	114	118	114	112	108	94	94	85	74	71	61	54	52	47	
1996	141	253	182	149	141	123	121	120	117	110	106	94	86	82	71	69	62	57		
1997	182	268	191	179	155	156	152	145	122	113	101	91	82	76	69	62	54			
1998	255	311	248	214	208	198	183	167	158	138	124	111	99	93	82	74				
1999	343	411	279	299	290	274	235	204	193	171	158	147	137	125	102					
2000	202	209	209	200	180	152	138	128	106	97	89	82	75	69						
2001	124	295	271	228	202	188	173	149	142	133	120	112	94							
2002	222	286	206	166	153	136	106	98	94	90	85	75								
2003	90	180	143	128	109	97	85	81	71	66	58									
2004	169	249	197	172	146	132	117	106	93	82										
2005	94	181	124	103	94	82	78	71	60											
2006	91	136	101	90	74	64	56	50												
2007	72	116	89	78	69	60	54													
2008	76	111	90	82	69	58														
2009	88	123	98	80	64															
2010	71	109	71	62																
2011	69	127	90																	
2012	71	102																		
2013	76																			



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Ratios of Paid to Incurred Loss

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months																			
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	0.012	0.114	0.297	0.480	0.641	0.688	0.675	0.721	0.705	0.734	0.764	0.787	0.812	0.821	0.890	0.912	0.922	0.932	0.940	0.961
1995	0.009	0.251	0.489	0.605	0.693	0.730	0.679	0.709	0.736	0.764	0.806	0.811	0.828	0.841	0.858	0.895	0.908	0.919	0.926	
1996	0.042	0.247	0.433	0.584	0.648	0.659	0.693	0.718	0.725	0.779	0.805	0.836	0.853	0.869	0.887	0.895	0.901	0.911		
1997	0.067	0.281	0.516	0.572	0.638	0.689	0.664	0.724	0.754	0.799	0.822	0.863	0.876	0.893	0.910	0.935	0.951			
1998	0.034	0.348	0.523	0.587	0.645	0.694	0.704	0.744	0.786	0.809	0.858	0.890	0.909	0.930	0.935	0.949				
1999	0.038	0.255	0.472	0.562	0.579	0.633	0.707	0.748	0.772	0.813	0.858	0.888	0.903	0.918	0.934					
2000	0.087	0.257	0.465	0.555	0.607	0.647	0.721	0.780	0.832	0.869	0.891	0.896	0.921	0.934						
2001	0.050	0.193	0.364	0.501	0.605	0.675	0.735	0.797	0.824	0.860	0.885	0.889	0.909							
2002	0.008	0.164	0.325	0.472	0.560	0.650	0.741	0.790	0.819	0.851	0.864	0.887								
2003	0.010	0.164	0.327	0.505	0.615	0.718	0.772	0.797	0.818	0.845	0.867									
2004	0.003	0.100	0.255	0.432	0.569	0.684	0.732	0.759	0.812	0.841										
2005	0.008	0.117	0.364	0.532	0.620	0.709	0.766	0.814	0.841											
2006	0.009	0.166	0.404	0.561	0.667	0.765	0.770	0.820												
2007	0.029	0.281	0.541	0.646	0.741	0.790	0.852													
2008	0.045	0.281	0.484	0.623	0.707	0.790														
2009	0.025	0.220	0.449	0.617	0.713															
2010	0.030	0.234	0.491	0.592																
2011	0.018	0.159	0.412																	
2012	0.007	0.164																		
2013	0.006																			

Note - Loss data equals ratio of data in Exhibit 13 to data in Exhibit 12.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Ratios of Closed to Reported Claims**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months		30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
	6	18																		
1994	0.182	0.688	0.782	0.724	0.788	0.829	0.835	0.871	0.859	0.853	0.871	0.882	0.906	0.912	0.929	0.941	0.947	0.947	0.941	0.953
1995	0.244	0.545	0.548	0.658	0.699	0.707	0.697	0.707	0.712	0.722	0.758	0.758	0.781	0.810	0.817	0.843	0.861	0.866	0.879	
1996	0.145	0.339	0.525	0.611	0.632	0.679	0.684	0.687	0.695	0.713	0.723	0.755	0.775	0.786	0.815	0.820	0.838	0.851		
1997	0.081	0.381	0.559	0.587	0.642	0.640	0.649	0.665	0.718	0.739	0.767	0.790	0.811	0.824	0.841	0.857	0.875			
1998	0.045	0.412	0.531	0.595	0.607	0.626	0.654	0.684	0.701	0.739	0.766	0.790	0.813	0.824	0.845	0.860				
1999	0.085	0.284	0.514	0.479	0.495	0.523	0.591	0.645	0.664	0.702	0.725	0.744	0.761	0.782	0.822					
2000	0.098	0.413	0.413	0.438	0.494	0.573	0.612	0.640	0.702	0.728	0.750	0.770	0.789	0.806						
2001	0.075	0.114	0.186	0.315	0.393	0.435	0.480	0.553	0.574	0.601	0.640	0.664	0.718							
2002	0.067	0.181	0.410	0.524	0.562	0.610	0.696	0.719	0.731	0.742	0.756	0.785								
2003	0.100	0.253	0.407	0.469	0.548	0.598	0.647	0.664	0.705	0.726	0.759									
2004	0.051	0.219	0.382	0.461	0.542	0.586	0.633	0.668	0.708	0.743										
2005	0.060	0.233	0.475	0.564	0.602	0.653	0.669	0.699	0.746											
2006	0.117	0.343	0.512	0.565	0.643	0.691	0.729	0.758												
2007	0.153	0.370	0.516	0.576	0.625	0.674	0.707													
2008	0.156	0.373	0.492	0.537	0.610	0.672														
2009	0.064	0.293	0.437	0.540	0.632															
2010	0.113	0.301	0.545	0.603																
2011	0.080	0.321	0.519																	
2012	0.202	0.427																		
2013	0.165																			

Note - Loss data equals ratio of data in Exhibit 16 to data in Exhibit 14.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Average Incurred Loss per Reported Claim

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months 6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	41,697	55,784	52,350	50,513	46,651	48,909	63,157	67,855	76,395	78,941	80,128	81,082	81,876	83,234	87,087	87,355	88,511	89,435	90,616	90,069
1995	51,269	41,385	47,040	51,171	54,104	62,303	77,626	85,376	92,036	96,338	98,609	105,395	108,880	115,588	118,253	117,357	119,559	121,166	122,572	
1996	54,160	61,015	67,660	72,129	79,663	95,467	105,225	115,463	126,591	129,263	135,788	141,488	146,150	149,307	149,064	152,400	154,619	156,267		
1997	61,534	64,346	65,264	83,550	98,214	110,088	132,337	141,685	148,245	151,196	156,597	158,391	162,765	165,742	167,238	166,371	165,916			
1998	74,696	68,047	79,115	97,650	114,501	129,898	147,959	158,390	166,719	175,189	177,491	178,426	181,552	184,150	185,803	187,368				
1999	69,359	73,671	91,068	113,959	145,802	162,973	167,938	176,224	186,707	191,535	195,612	197,740	200,360	202,291	203,166					
2000	80,771	87,664	110,233	129,783	150,921	170,116	176,043	180,100	180,979	183,855	187,904	192,313	192,241	193,828						
2001	120,337	127,998	149,860	162,547	180,239	197,135	208,057	210,586	219,884	225,438	230,954	239,202	240,349							
2002	114,881	119,841	125,095	134,481	148,544	157,915	161,162	170,221	175,672	177,892	183,290	184,351								
2003	117,300	103,700	123,155	126,919	132,981	133,903	142,659	151,843	158,494	162,296	166,251									
2004	121,461	126,660	126,895	152,464	150,342	149,672	161,339	171,523	169,483	171,070										
2005	137,350	129,808	124,711	125,433	138,143	142,972	149,321	155,663	161,395											
2006	112,379	109,056	100,637	106,890	112,781	117,569	131,212	134,939												
2007	117,118	109,921	112,517	132,802	142,291	150,569	155,181													
2008	116,500	110,607	126,739	132,894	138,407	142,298														
2009	124,096	127,912	123,499	118,912	123,941															
2010	116,663	112,391	111,865	132,895																
2011	120,133	108,419	101,049																	
2012	101,809	85,640																		
2013	104,670																			

Note - Loss data equals ratio of data in Exhibit 12 to data in Exhibit 14.





**Pennsylvania Insurance Department / Bureau of Special Funds**  
**USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Average Paid Loss per Closed Claim

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months 6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	2,655	9,278	19,864	33,531	37,947	40,585	51,003	56,194	62,706	67,913	70,342	72,292	73,382	74,912	83,358	84,603	86,146	87,979	90,501	90,846
1995	1,960	19,090	41,968	47,073	53,597	64,315	75,703	85,640	95,164	101,863	104,793	112,687	115,427	120,114	124,184	124,552	126,082	128,546	129,164	
1996	15,752	44,394	55,840	68,990	81,712	92,736	106,590	120,797	132,063	141,323	151,227	156,680	160,728	165,113	162,381	166,338	166,180	167,181		
1997	50,961	47,402	60,254	81,506	97,531	118,535	135,465	154,281	155,719	163,548	167,797	173,014	175,957	179,588	181,128	181,538	180,342			
1998	55,794	57,512	77,905	96,182	121,730	144,090	159,153	172,185	186,837	191,814	198,967	200,974	202,934	207,752	205,667	206,809				
1999	31,100	66,243	83,595	133,728	170,737	197,329	201,022	204,576	217,036	221,769	231,660	236,066	237,710	237,498	230,813					
2000	71,594	54,584	124,014	164,460	185,433	192,001	207,291	219,255	214,422	219,488	223,205	223,981	224,396	224,591						
2001	80,891	216,508	292,970	258,204	277,017	305,783	318,305	303,762	315,981	322,679	319,429	320,418	304,284							
2002	13,522	108,556	99,162	121,129	148,204	168,214	171,590	186,900	196,855	203,884	209,278	208,336								
2003	11,645	67,261	98,890	136,761	149,214	160,916	170,195	182,280	183,795	188,860	189,834									
2004	6,159	57,909	84,494	142,971	157,797	174,767	186,541	194,902	194,370	193,581										
2005	19,292	65,233	95,530	118,445	142,442	155,447	170,813	181,328	181,986											
2006	8,245	52,709	79,455	106,077	117,114	130,204	138,537	145,895												
2007	21,994	83,478	117,998	148,993	168,597	176,587	187,118													
2008	33,851	83,436	124,891	154,263	160,438	167,217														
2009	49,445	95,891	127,034	135,910	139,814															
2010	30,797	87,318	100,903	130,568																
2011	26,736	53,743	80,172																	
2012	3,739	32,982																		
2013	3,720																			

Note - Loss data equals ratio of data in Exhibit 13 to data in Exhibit 16.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Average Case Outstanding Loss

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months																			
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	50,373	158,449	169,125	94,954	79,050	89,377	124,792	146,299	159,668	142,906	145,957	147,008	163,625	169,222	136,183	131,394	130,815	115,490	92,468	74,339
1995	67,188	68,089	53,179	59,059	55,283	57,449	82,042	84,741	84,300	81,962	79,203	82,510	85,465	96,322	91,689	78,670	79,095	73,339	74,603	
1996	60,698	69,556	80,715	77,060	76,146	101,239	102,270	103,772	114,151	99,332	95,442	94,781	95,805	91,289	90,547	88,971	94,767	93,846		
1997	62,464	74,777	71,612	86,451	99,439	95,089	126,553	116,667	129,190	116,217	119,783	103,435	106,297	100,707	93,964	75,612	64,663			
1998	75,585	75,432	80,486	99,810	103,344	106,173	126,795	128,485	119,479	128,086	107,347	93,516	88,683	73,497	77,521	67,833				
1999	72,929	76,616	98,970	95,776	121,384	125,356	120,211	124,801	126,834	120,281	100,700	86,413	81,222	75,825	75,229					
2000	81,770	110,931	100,539	102,735	117,176	140,746	126,679	110,355	102,105	88,710	82,001	86,496	71,765	65,867						
2001	123,518	116,597	117,120	118,494	117,477	113,337	106,093	95,524	90,628	79,212	73,913	78,946	77,788							
2002	122,186	122,327	143,097	149,201	148,979	141,785	137,256	127,504	118,208	103,094	102,576	96,727								
2003	129,039	116,048	139,784	118,230	113,323	93,803	92,122	91,720	97,914	91,859	91,843									
2004	127,601	145,987	153,153	160,577	141,508	114,120	117,829	124,546	109,005	106,010										
2005	144,886	149,431	151,068	134,457	131,650	119,543	105,787	96,018	100,996											
2006	126,111	138,472	122,868	107,946	104,994	89,338	111,461	100,535												
2007	134,293	125,422	106,668	110,800	98,446	96,799	78,297													
2008	131,725	126,763	128,526	108,137	103,924	91,170														
2009	129,186	141,189	120,757	98,939	96,659															
2010	127,547	123,202	124,989	136,424																
2011	128,255	134,250	123,550																	
2012	126,672	124,875																		
2013	124,595																			

Note - The above values can be calculated according to the following formula: (Exhibit 12 - Exhibit 13) / (Exhibit 14 - Exhibit 16)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Ratios of Paid ALAE to Paid Loss

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months																			
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	0.000	0.025	0.029	0.027	0.039	0.038	0.033	0.030	0.035	0.051	0.081	0.125	0.153	0.170	0.163	0.161	0.159	0.157	0.154	0.152
1995	0.000	0.010	0.010	0.011	0.011	0.015	0.015	0.014	0.015	0.018	0.018	0.020	0.023	0.024	0.026	0.026	0.027	0.027	0.027	
1996	0.000	0.002	0.004	0.010	0.010	0.009	0.008	0.007	0.008	0.008	0.011	0.014	0.018	0.021	0.024	0.026	0.027	0.029		
1997	0.000	0.007	0.012	0.015	0.017	0.022	0.036	0.037	0.035	0.033	0.033	0.034	0.035	0.036	0.037	0.037	0.038			
1998	0.000	0.008	0.009	0.016	0.030	0.037	0.037	0.039	0.045	0.047	0.048	0.050	0.051	0.052	0.054	0.055				
1999	0.000	0.001	0.004	0.011	0.015	0.017	0.022	0.033	0.037	0.040	0.041	0.042	0.045	0.047	0.048					
2000	0.000	0.000	0.006	0.012	0.018	0.035	0.041	0.041	0.044	0.044	0.044	0.047	0.048	0.048						
2001	0.001	0.018	0.017	0.018	0.018	0.019	0.026	0.028	0.029	0.031	0.034	0.035	0.036							
2002	0.054	0.037	0.037	0.035	0.030	0.029	0.028	0.029	0.030	0.033	0.035	0.038								
2003	0.528	0.088	0.062	0.046	0.045	0.042	0.041	0.040	0.043	0.045										
2004	0.153	0.064	0.085	0.060	0.054	0.052	0.050	0.050	0.051	0.055										
2005	0.125	0.055	0.052	0.051	0.054	0.054	0.055	0.059	0.063											
2006	0.103	0.041	0.041	0.046	0.052	0.051	0.049	0.053												
2007	0.020	0.044	0.047	0.048	0.049		0.052													
2008	0.022	0.031	0.037	0.051	0.063	0.069														
2009	0.023	0.068	0.081	0.085	0.092															
2010	0.051	0.062	0.066	0.066																
2011	0.100	0.109	0.103																	
2012	0.074	0.135																		
2013	0.343																			

Note - Loss data equals ratio of data in Exhibit 15 to data in Exhibit 13.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

USTIF Loss Fund Experience at 6/30/2013  
Average Paid ALAE per Reported Claim

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Policy Period	Age in Months 6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
1994	-	161	454	658	1,179	1,276	1,412	1,459	1,896	2,959	4,950	7,952	10,185	11,633	12,614	12,784	13,013	13,061	13,118	13,199
1995	-	104	224	346	427	662	786	867	996	1,321	1,437	1,682	2,050	2,340	2,639	2,764	2,923	2,985	3,115	
1996	-	31	103	425	524	551	563	606	747	845	1,204	1,713	2,252	2,720	3,200	3,557	3,758	4,099		
1997	-	126	408	728	1,044	1,688	3,195	3,764	3,913	3,984	4,250	4,647	4,926	5,267	5,586	5,814	6,038			
1998	-	197	367	889	2,198	3,336	3,864	4,616	5,911	6,678	7,326	7,902	8,378	8,931	9,348	9,771				
1999	-	21	151	702	1,272	1,713	2,591	4,301	5,386	6,272	6,954	7,458	8,134	8,689	9,196					
2000	1	3	329	840	1,605	3,804	5,230	5,808	6,615	6,971	7,438	8,056	8,475	8,720						
2001	7	447	940	1,485	1,919	2,476	4,009	4,684	5,343	6,063	6,883	7,416	7,923							
2002	49	716	1,520	2,192	2,522	2,943	3,346	3,896	4,345	4,942	5,594	6,199								
2003	614	1,495	2,492	2,946	3,679	4,005	4,485	4,861	5,533	6,223	7,027									
2004	48	809	2,736	3,976	4,599	5,326	5,895	6,443	7,030	7,865										
2005	145	843	2,354	3,416	4,669	5,514	6,243	7,457	8,537											
2006	99	748	1,659	2,787	3,902	4,548	4,978	5,854												
2007	69	1,361	2,853	4,142	5,147	6,095	6,815													
2008	118	974	2,252	4,248	6,203	7,793														
2009	72	1,900	4,471	6,234	8,122															
2010	178	1,622	3,632	5,204																
2011	214	1,876	4,267																	
2012	56	1,907																		
2013	210																			

Note - Loss data equals ratio of data in Exhibit 15 to data in Exhibit 14.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Data Summary - Loss Summary**

(1) Policy Period	(2) Loss			(5) ALAE
	Paid	Case Reserve	Case Incurred	Paid
1994	14,717,050	594,711	15,311,761	2,243,806
1995	44,174,078	3,506,319	47,680,397	1,211,556
1996	54,500,935	5,349,234	59,850,169	1,569,935
1997	68,349,730	3,491,780	71,841,510	2,614,271
1998	94,098,293	5,019,624	99,117,917	5,168,911
1999	108,943,899	7,673,367	116,617,266	5,278,273
2000	64,457,740	4,544,850	69,002,590	3,104,229
2001	72,723,966	7,312,098	80,036,064	2,638,453
2002	57,084,147	7,254,517	64,338,664	2,163,461
2003	34,739,575	5,326,902	40,066,477	1,693,604
2004	45,878,641	8,692,840	54,571,481	2,508,837
2005	32,029,453	6,059,773	38,089,226	2,014,661
2006	22,905,540	5,026,730	27,932,270	1,211,684
2007	24,325,300	4,228,030	28,553,330	1,253,950
2008	19,898,848	5,287,866	25,186,714	1,379,413
2009	15,379,563	6,186,163	21,565,726	1,413,265
2010	12,273,389	8,458,262	20,731,651	811,890
2011	7,776,653	11,119,495	18,896,148	797,955
2012	2,506,650	12,737,282	15,243,932	339,366
2013	55,803	9,469,197	9,525,000	19,130
Total	796,819,253	127,339,040	924,158,293	39,436,650

(2) Based on client data.

(3) Based on client data.

(4) = (2) + (3)

(5) Based on client data.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Data Summary - Number of Open Claims at Prior Valuations**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Policy Period	Number of Open Claims as of:							
	6/30/2006	6/30/2007	6/30/2008	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013
1994	16	15	12	10	9	9	10	8
1995	94	85	74	71	61	54	52	47
1996	106	94	86	82	71	69	62	57
1997	113	101	91	82	76	69	62	54
1998	158	138	124	111	99	93	82	74
1999	204	193	171	158	147	137	125	102
2000	138	128	106	97	89	82	75	69
2001	188	173	149	142	133	120	112	94
2002	153	136	106	98	94	90	85	75
2003	128	109	97	85	81	71	66	58
2004	197	172	146	132	117	106	93	82
2005	181	124	103	94	82	78	71	60
2006	91	136	101	90	74	64	56	50
2007	n/a	72	116	89	78	69	60	54
2008	n/a	n/a	76	111	90	82	69	58
2009	n/a	n/a	n/a	88	123	98	80	64
2010	n/a	n/a	n/a	n/a	71	109	71	62
2011	n/a	n/a	n/a	n/a	n/a	69	127	90
2012	n/a	n/a	n/a	n/a	n/a	n/a	71	102
2013	n/a	n/a	n/a	n/a	n/a	n/a	n/a	76
Total	1,767	1,676	1,558	1,540	1,495	1,469	1,429	1,336

(2) - (8) From Exhibit 17.



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience at 6/30/2013  
Data Summary - Claim Counts**

(1)	(2)	(3)	(4)
Policy Period	Closed Claim Counts	Open Claim Counts	Reported Claim Counts
1994	162	8	170
1995	342	47	389
1996	326	57	383
1997	379	54	433
1998	455	74	529
1999	472	102	574
2000	287	69	356
2001	239	94	333
2002	274	75	349
2003	183	58	241
2004	237	82	319
2005	176	60	236
2006	157	50	207
2007	130	54	184
2008	119	58	177
2009	110	64	174
2010	94	62	156
2011	97	90	187
2012	76	102	178
2013	15	76	91
Total	4,330	1,336	5,666

(2) Based on client data.

(3) Based on client data.

(4) = (2) + (3)



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience @ 6/30/2013  
Data Summary - Fixed Price Contracts Through Close**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Policy Period	Year Entered Into Since Policy Year Inception																Total
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	
1998	n/a	n/a	n/a	n/a	n/a	n/a	0	1	1	6	2	6	3	1	3	0	23
1999	n/a	n/a	n/a	n/a	n/a	0	0	2	9	5	2	5	2	2	1		28
2000	n/a	n/a	n/a	n/a	1	1	3	1	3	1	2	0	2	1			15
2001	n/a	n/a	n/a	0	0	2	2	2	3	4	3	2	2				20
2002	n/a	n/a	0	2	0	1	3	3	0	2	2	1					14
2003	n/a	0	1	6	0	1	4	0	2	0	0						14
2004	0	2	3	3	4	1	3	0	1	0							17
2005	0	3	3	7	4	5	3	4	0								29
2006	0	2	5	3	4	1	1	0									16
2007	0	3	4	1	1	3	1										13
2008	0	1	1	2	6	0											10
2009	0	1	3	1	2												7
2010	0	3	1	4													8
2011	0	1	3														4
2012	0	0															0
2013	0																0
Total	0	16	24	29	22	15	20	13	19	18	11	14	9	4	4		218

(2) through (16) Incremental counts based on client data.

(18) Sum of (2) through (16).

Note: Values on last diagonal represent 6 months of data.

There are five records with missing contract year that are not included above.





**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience @ 6/30/2013  
Post Remedial Care Costs Associated with Environmental Covenants  
Summary by Policy Period**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Policy Period	Claim Counts			Paid PRCP			PRCP Case Reserves			Incurred PRCP		
	Open	Closed	Total	Open	Closed	Total	Open	Closed	Total	Open	Closed	Total
1994	1	1	2	0	698	698	50,000	10,665	60,665	50,000	11,363	61,363
1995	2	1	3	0	111	111	22,500	4,639	27,139	22,500	4,750	27,250
1996	2	0	2	12,266	0	12,266	412,734	0	412,734	425,000	0	425,000
1997	0	2	2	0	13,638	13,638	0	6,617	6,617	0	20,255	20,255
1998	1	1	2	0	1,113	1,113	22,525	32,337	54,862	22,525	33,450	55,975
1999	0	10	10	0	3,115	3,115	0	128,775	128,775	0	131,890	131,890
2000	1	1	2	0	0	0	0	25,000	25,000	0	25,000	25,000
2001	2	7	9	5,871	3,117	8,988	22,407	155,321	177,727	28,278	158,438	186,716
2002	3	0	3	2,778	0	2,778	48,779	0	48,779	51,557	0	51,557
2003	0	1	1	0	0	0	0	2,560	2,560	0	2,560	2,560
2004	1	2	3	1,638	1,132	2,770	12,912	11,171	24,083	14,550	12,304	26,854
2005	1	2	3	0	0	0	0	5,840	5,840	0	5,840	5,840
2006	1	1	2	0	258	258	3,750	5,992	9,742	3,750	6,250	10,000
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008 - 2013	0	0	0	0	0	0	0	0	0	0	0	0
Total	15	29	44	22,553	23,181	45,735	595,607	388,917	984,523	618,160	412,098	1,030,258
Control	15	29	44	22,553	23,181	45,735	595,607	388,917	984,523	618,160	412,098	1,030,258

(2) through (13) Based on client data



**Pennsylvania Insurance Department / Bureau of Special Funds  
USTIF Loss Fund**

**USTIF Loss Fund Experience @ 6/30/2013  
Post Remedial Care (PRC) Costs Associated with Environmental Covenants  
Summary by PRC Year**

(1)	(2)	(3)	(4)
PRC Year	Paid	Case Reserves	Incurred
Not Available	0	72,525	72,525
2005	0	0	0
2006	4,139	55,861	60,000
2007	0	0	0
2008	3,225	31,886	35,111
2009	606	8,844	9,450
2010	1,113	32,337	33,450
2011	6,579	65,624	72,203
2012	26,306	481,531	507,837
2013	3,767	235,916	239,684
Total	45,735	984,523	1,030,258
Control	45,735	984,523	1,030,258

(1) Based on the PRC agreement date

(2) through (4) Based on client data



# Appendix



# **Pennsylvania Insurance Department / Bureau of Special Funds Tank Installers Indemnification Program**

## **Loss and Expense Projections Incurred by Fiscal Year**

(1)	(2)	(3)	(4)	(5)
<u>Fiscal Year</u>	<u>Total Revenue</u>	<u>Estimated Total Annual Cost</u>	<u>Underwriting Income</u>	<u>Cumulative Underwriting Income</u>
7/1/13 - 6/30/14	280,000	302,580	(22,580)	(22,580)
7/1/14 - 6/30/15	280,000	312,213	(32,213)	(54,793)
7/1/15 - 6/30/16	280,000	322,158	(42,158)	(96,951)
7/1/16 - 6/30/17	280,000	332,424	(52,424)	(149,374)
7/1/17 - 6/30/18	280,000	343,021	(63,021)	(212,396)
7/1/18 - 6/30/19	280,000	353,962	(73,962)	(286,358)
7/1/19 - 6/30/20	280,000	365,257	(85,257)	(371,615)
7/1/20 - 6/30/21	280,000	376,918	(96,918)	(468,534)
7/1/21 - 6/30/22	280,000	388,957	(108,957)	(577,491)
7/1/22 - 6/30/23	280,000	401,387	(121,387)	(698,878)
Total	2,800,000	3,498,878	(698,878)	

(2) From Appendix Exhibit 3 with a 0% trend going forward.

(3) From Appendix Exhibit 2.

(4) Equals (2) - (3).

(5) From (4).



**Pennsylvania Insurance Department / Bureau of Special Funds  
Tank Installers Indemnification Program**

**Loss and Expense Projections  
Incurred by Fiscal Year**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Fiscal Year</u>	<u>Tanks-Installed</u>	<u>Loss Rate</u>	<u>Estimated Annual ALAE</u>	<u>Estimated Annual Loss and ALAE</u>	<u>Estimated ULAE</u>	<u>Estimated Total Annual Cost</u>
7/1/13 - 6/30/14	260	950	34,580	281,580	21,000	302,580
7/1/14 - 6/30/15	260	979	35,963	290,373	21,840	312,213
7/1/15 - 6/30/16	260	1,008	37,402	299,444	22,714	322,158
7/1/16 - 6/30/17	260	1,038	38,898	308,801	23,622	332,424
7/1/17 - 6/30/18	260	1,069	40,454	318,454	24,567	343,021
7/1/18 - 6/30/19	260	1,101	42,072	328,413	25,550	353,962
7/1/19 - 6/30/20	260	1,134	43,755	338,686	26,572	365,257
7/1/20 - 6/30/21	260	1,168	45,505	349,284	27,635	376,918
7/1/21 - 6/30/22	260	1,203	47,325	360,217	28,740	388,957
7/1/22 - 6/30/23	260	1,240	49,218	371,497	29,890	401,387
Total	2,600		415,171	3,246,749	252,128	3,498,878

(2) From Appendix Exhibit 6 for 2013 (0% trend per annum thereafter).

(3) From Appendix Exhibit 4-1 for 2013 (3.0% trend per annum thereafter).

(4) From the projections in the USTIF Loss Fund analysis.

(5) Equals (2) x (3) + (4).

(6) Value for 2013 selected based on discussions with the PA Insurance Department. Trended at 4% thereafter.

(7) Sum of (5) and (6).



# **Pennsylvania Insurance Department / Bureau of Special Funds Tank Installers Indemnification Program**

**Estimated Revenue for the Period 7/1/2013 - 6/30/2014**

(1)	(2)	(3)	(4)
Type	Number of Licenses or Activities	Fees	Revenue
Company Fees	209	1,000	209,000
Activity - Removal	450	15	6,750
Activity - Major Modifications	825	50	41,250
Activity - Installations	260	50	13,000
		Indicated Total	270,000
		(5) Actual Fees - 7/1/2012 to 6/30/2013	289,456
		Selected 2013/14 TIIP Revenue	280,000

(2) From Appendix Exhibit 6 with the Number of Licenses provided by the PA Insurance Department.

(3) From the current fee structure.

(4) Equals (2) times (3)

(5) Provided by PA Insurance Department.



**Pennsylvania Insurance Department / Bureau of Special Funds  
Tank Installers Indemnification Program**

**Estimation of Prospective Loss Rate**

(1)	(2)	(3)	(4)	(5)
<u>Calendar or Fiscal Year</u>	<u>Indicated Ultimate</u>	<u>Ultimate Trended to 2013/14</u>	<u>Tanks-Installed</u>	<u>Loss per Tank</u>
1/1/02 - 6/30/02	0	0	86	0
7/1/02 - 6/30/03	80,735	111,756	461	242
7/1/03 - 6/30/04	150,218	201,880	334	604
7/1/04 - 6/30/05	0	0	314	0
7/1/05 - 6/30/06	0	0	261	0
7/1/06 - 6/30/07	0	0	220	0
7/1/07 - 6/30/08	0	0	232	0
7/1/08 - 6/30/09	0	0	275	0
7/1/09 - 6/30/10	91,758	103,274	241	429
7/1/10 - 6/30/11	977,706	1,068,366	242	4,415
7/1/11 - 6/30/12	366,147	388,446	292	1,330
7/1/12 - 6/30/13	507,408	522,630	209	2,501
Total	2,173,972	2,396,352	3,167	757
Control	2,173,972		3,167	
Average: 7/1/2002 - 6/30/2013				778
Average: 7/1/2004 - 6/30/2013				911
Prior Selected Loss Rate (2012 Review)				950
Selected Loss Rate				950

- (2) From Appendix Exhibit 4-2.  
(3) Trended at 3.0% per annum.  
(4) From Appendix Exhibit 6.  
(5) Equals (3) divided by (4).



**Pennsylvania Insurance Department / Bureau of Special Funds  
Tank Installers Indemnification Program**

**Estimation of Ultimate TIIP Losses**

(1)	(2)	(3)	(4)	(5)	(6) (2) + (1-(3)) <sup>(4)</sup> x (1-.17)	(7) see note
<u>Calendar or Fiscal Year</u>	<u>Reported Loss at 6/30/13</u>	<u>Expected % Reported at 6/30/2013</u>	<u>Revenue</u>	<u>Loss Development Estimate</u>	<u>BF Loss Estimates</u>	<u>Indicated Ultimate</u>
1/1/02 - 6/30/02	0	86%	208,026	0	23,489	0
7/1/02 - 6/30/03	80,735	85%	348,561	94,843	123,771	80,735
7/1/03 - 6/30/04	125,000	83%	325,583	150,218	170,366	150,218
7/1/04 - 6/30/05	0	81%	320,096	0	50,097	0
7/1/05 - 6/30/06	0	79%	310,424	0	54,272	0
7/1/06 - 6/30/07	0	76%	300,471	0	60,497	0
7/1/07 - 6/30/08	0	71%	299,774	0	71,400	0
7/1/08 - 6/30/09	0	67%	327,028	0	88,291	0
7/1/09 - 6/30/10	50,000	64%	286,278	77,544	134,400	91,758
7/1/10 - 6/30/11	881,413	60%	290,385	1,467,857	977,706	977,706
7/1/11 - 6/30/12	262,500	56%	286,120	465,794	366,147	366,147
7/1/12 - 6/30/13	375,000	42%	273,360	900,536	507,408	507,408
Total	1,774,648		3,576,106	3,156,792	2,627,843	2,173,972
Control	1,774,648		3,576,106			

(2) From Appendix Exhibit 5.

(3) Per USTIF loss development factors.

(4) From Appendix Exhibit 6.

(5) Equals (2) divided by (3).

(6) Assumes a 17% expense to revenue ratio based on the assumptions in the USTIF analysis (includes a provision for ULAE).

(7) Equals (2) if there are no open or appealed cases and equals (6) for 2010-2012. Otherwise, equals weighted average of (5) and (6).





**Pennsylvania Insurance Department / Bureau of Special Funds  
Tank Installers Indemnification Program**

Summary of TIIP Data as of June 30, 2013

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Number of Claims by Type					
<u>Calendar or Fiscal Year</u>	<u>Open</u>	<u>Appealed</u>	<u>Closed or Withdrawn</u>	<u>Total</u>	<u>Paid ALAE Expense Amounts</u>	<u>Reported Loss</u>
1/1/02 - 6/30/02	-	-	-	-	-	-
7/1/02 - 6/30/03	-	-	5	5	54,247	80,735
7/1/03 - 6/30/04	1	-	3	4	26,471	125,000
7/1/04 - 6/30/05	-	-	-	-	-	-
7/1/05 - 6/30/06	-	-	-	-	-	-
7/1/06 - 6/30/07	-	-	2	2	-	-
7/1/07 - 6/30/08	-	-	1	1	-	-
7/1/08 - 6/30/09	-	-	-	-	-	-
7/1/09 - 6/30/10	1	1	-	2	-	50,000
7/1/10 - 6/30/11	1	-	2	3	97,061	881,413
7/1/11 - 6/30/12	2	-	4	6	136,124	262,500
7/1/12 - 6/30/13	2	-	1	3	19,870	375,000
Total	7	1	18	26	333,773	1,774,648
Control	7	1	18	26	333,773	1,774,648
					-	-

(2) - (4) Based on client data.  
 (5) Sum of (2) through (4).  
 (6) & (7) Based on client data.



**Pennsylvania Insurance Department / Bureau of Special Funds  
Tank Installers Indemnification Program**

**Exposure Summary - By Period**

(1)	(2)	(3)	(4)	(5)
<u>Calendar or Fiscal Year</u>	<u>Tanks-Removed or Closed</u>	<u>Tanks-Major Modifications</u>	<u>Tanks-Installed</u>	<u>Total Fee Revenue</u>
1/1/02 - 6/30/02	239	99	86	208,026
7/1/02 - 6/30/03	783	559	461	348,561
7/1/03 - 6/30/04	973	561	334	325,583
7/1/04 - 6/30/05	817	681	314	320,096
7/1/05 - 6/30/06	646	569	261	310,424
7/1/06 - 6/30/07	513	476	220	300,471
7/1/07 - 6/30/08	522	489	232	299,774
7/1/08 - 6/30/09	580	822	275	327,028
7/1/09 - 6/30/10	475	725	241	286,278
7/1/10 - 6/30/11	529	907	242	290,385
7/1/11 - 6/30/12	418	885	292	286,120
7/1/12 - 6/30/13	364	729	209	273,360
Total	6,859	7,502	3,167	3,576,106
(6a) Indication #1 for 7/1/13 - 6/30/14	384	1,008	249	
(6b) Indication #2 for 7/1/13 - 6/30/14	341	805	230	
(6c) Average for 7/1/07 - 6/30/13	481	760	249	
(6d) Average for 7/1/09 - 6/30/13	447	812	246	
(7) Selected for 7/1/13 - 6/30/14	450	825	260	

(2) - (5) Based on client data.

(6a) Based on Linear Regression for 2006 - 2012.

(6b) Based on Linear Regression for 2009 - 2012.

(6c) and (6d) Simple Averages

(7) Selected based on actuarial judgment and discussions with the client.